II. MORBIDITY

A. INFECTIOUS DISEASES

Background

Vaccines are among the most effective and reliable of medicines for people of all ages. Every year, they prevent countless serious illnesses and thousands of possible deaths. About 100 million vaccine doses are given annually in the United States, most of them to infants and children as part of their routine immunization schedule. A single dose of some vaccines gives nearly complete protection. With others, a series of doses spread over months or years is needed for the best results.

Children in particular are beneficiaries of the protection from illness that vaccines offer. Currently, there are ten diseases from which children are routinely protected through the use of standard childhood immunizations. These diseases are: diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella (German measles), hepatitis B, Haemophilus influenzae B (bacterial meningitis), and varicella (chicken pox). Enormous reductions have been seen in each of these serious diseases since the introduction of vaccines. For example, there were 894,134 cases of measles reported in the United States in 1941, but only 100 in 1998. Louisiana had no reported cases of measles in 1998.

Although the public is most familiar with the vaccines used for childhood immunization, there are many others that afford protection to individuals at risk of infection from other types of exposures. An example is the hepatitis A vaccine, which recently has become available to select populations, such as travelers to areas where the disease is endemic.

In addition to being reliable and effective, vaccines are also one of the most cost-effective medical procedures available. The ten vaccine-preventable diseases addressed in standard childhood immunizations are very serious illnesses and very expensive to treat. Vaccines are relatively inexpensive and very effective. Cost estimates show that each dollar spent on immunization saves $10-$12 in direct medical and hospitalization costs. These estimates do not include attendant costs, such as workdays lost by family members, costs for outbreak control, or the burden of lives lost to these severe diseases. A prime example is measles, which leads to the hospitalization of approximately 10% of those who become ill. Even with excellent medical care, approximately 1 out of every 1,000 cases dies, usually from measles infection of the lungs and of the brain.

The diseases that are prevented by routine childhood immunizations have not disappeared. Pertussis is spread by direct contact, such as coughing, to others who are not immune. As a result of childhood immunization, Louisiana reported only 13 cases of pertussis in 1998. In countries where childhood immunization against pertussis has been halted, there have been large outbreaks of whooping cough. Diphtheria, another dangerous infection, which has been controlled through childhood immunization, has not been seen in Louisiana since 1972. However, there currently is an epidemic of diphtheria in Eastern Europe and Asia. Without immunization, re-introduction of this disease into Louisiana via an infected person from one of these regions is easily possible.

1998 Status

Hepatitis A (HAV) is a viral disease that affects the liver. The number of hepatitis A cases reported in 1998 decreased by 35% from 1997 and represents the lowest number of cases reported in Louisiana since 1994. Louisiana's case rate has consistently remained lower than the national rate (4.0 vs. 11.2 per 100,000). Sex-race specific rates per 100,000 were highest among Caucasian females (4.3) followed by African-American females (3.6). Rates by age groups were highest among three different age groups: 5-9 years (5.5/100,000), 20-24 years and 55-64 years (4.8/100,000 each).

Approximately half of the 173 cases statewide reported risk factor information. Of these case reports, 9.6% attended day care and 33% were contacts of a known hepatitis A case, of which 77% were household-related. Parishes reporting the highest case rates and quadrupling the overall state case rate per 100,000 include: Acadia (49), Jefferson Davis (19), Ouachita and Vernon (18 each).

Hepatitis B (HBV) is a serious public health problem that affects people of all ages in the United States and around the world. Each year an estimated 300,000 people become infected with the hepatitis B virus in the United States. The disease is caused by a virus that attacks the liver. A person can get hepatitis B by direct contact with the blood or body fluids of an infected person. A baby can get hepatitis B from an infected mother during childbirth. Symptoms of hepatitis B include yellowing of the skin or eyes, loss of appetite, nausea, vomiting, fever, extreme tiredness, or stomach pain.

The most effective means of preventing hepatitis B infection is to be immunized with the hepatitis B vaccine. Research is also being carried out on drugs that have the potential for improving treatment of chronic hepatitis.

In 1998, hepatitis B case reports increased by 5% from 1997. Sex-specific rates continue to be higher for males than females (6.3 vs. 4.0 per 100,000). Race-specific rates were almost six times higher for African-Americans than for Caucasians (9.9 vs. 1.7 per 100,000). Sex-race specific rates were highest among African American males (12.0 per 100,000) followed by African American females (8.0). The 20-44 age group accounted for 60% of all reported cases. Of the 219 cases reported, 40 reported drug use. Of these, 2 (5%) cases reportedly used IV drugs during the six weeks to six months prior to illness. Of the 37 cases with tattoo information, 6 (16%) reported receiving one or more tattoos during the six weeks to six months prior to illness. Of those reporting number of sexual partners in the six months prior to infection, 33% had greater than two sexual partners. Of the cases reporting a sexual preference, 88% were heterosexual. Parishes reporting the highest case rates per 100,000 included Tangipahoa (17), West Feliciana (15), Pointe Coupee (13), Orleans (12), Washington (12), and St. Charles (11).

Hepatitis C is a viral disease that causes liver inflammation and can lead to cirrhosis and cancer of the liver. It is a disease of growing magnitude in the United States: an estimated 3.9 million (1.8%) Americans have been infected with HCV, of whom 2.7 million are chronically infected. There are approximately 36,000 new infections diagnosed in the United States each year, of which 25-30% are symptomatic. Symptoms of hepatitis C are often non-specific, but may include jaundice, fatigue, abdominal pain, loss of appetite, intermittent nausea, and vomiting. Persons at increased risk of contracting hepatitis C include injecting drug users, sex contacts of infected persons, persons with multiple sex partners, recipients of blood transfusions before July 1992, health care workers exposed to blood, and infants born to infected women.

While there is no vaccine available to prevent hepatitis C, antiviral drugs such as interferon used alone or in combination with ribavirin, are approved for the treatment of persons with chronic hepatitis C.

In 1998, 137 (3.2 per 100,000) cases of acute hepatitis C were reported, 50% less than in 1997. This decrease may be due to better screening of chronic cases from acute cases. Sex-race specific rates were highest among African-American males (6.7 per 100,000) and lowest among white females (1.6 per 100,000). Of all reported cases, 43% were between the ages of 35 and 44. Parishes reporting the highest case rates per 100,000 include West Carroll (17), Pointe Coupee (13), and Catahoula (9).

Pertussis (whooping cough) is a respiratory illness that can affect all age groups, but mostly is found in infants and young children. It is caused by a bacterium called *Bordetella pertussis*. These bacteria are present in the mouths and noses of infected people. Pertussis symptoms are the usual cold symptoms, which then develop into coughing fits with a high-pitched "whooping" sound. Pertussis can be fatal in infants.

Immunization against pertussis involves five doses of the DTP (diphtheria, tetanus, and pertussis) combination vaccination starting at age two months.

There were 13 cases reported in 1998, which is a decrease of 41% from 1997 and is the lowest reported total since 1984. Cases continue to cluster by age, with 77% of all reported cases under four years of age and no reported cases over twelve years of age. Eighty-five percent of the cases were Caucasian and 62% were male. Of the 7 cases reporting vaccine histories, 4 cases had no DTP doses prior to the onset of illness, and 1 case had one dose. A twelve-year-old male had all 5 DTP doses prior to illness. One six-year-old case had reportedly never been vaccinated with DTP.

Mumps is a viral respiratory disease that causes swelling and pain of salivary glands in the face and neck. Mumps is spread by contact with infected people. This disease is contagious from one to two days before and until seven days after symptoms appear. It is most infectious when the swelling starts. The symptoms are fever, pain in front of the ears that increases during chewing, and swollen glands in the cheeks and sometimes under the jaw. It is most likely to affect children ages five to nine, but may occur at any age. It is likely to be more serious and painful in teenagers and adults.

Immunization against mumps involves two doses of MMR (measles, mumps and rubella) vaccine, usually at age twelve months and at four to six years.

In 1998, 9 cases of mumps were reported, a decrease of 50% from 1997 and of 63% from 1996. Two-thirds of the reported cases were male; 44% were less than 9 years of age. Cases were distributed throughout Louisiana with no parish reporting more than two cases. Region I (the New Orleans area) and Region II (the Baton Rouge area) each reported 3 cases. One patient had received one dose of MMR vaccine at one year old and became infected with mumps almost one year later. Vaccine histories of other cases were not reported.

Selected Infectious Diseases
Louisiana 1994-1998

	1994	***1995***	***1996***	***1997***	***1998***
Hepatitis A	171	196	261	266	173
Hepatitis B	206	244	209	208	219
Pertussis	15	22	15	22	13
Mumps	39	15	24	18	9

Source: LA Office of Public Health, Infectious Disease Epidemiology Program

Selected Infectious Diseases by Parish* Louisiana, 1998							
Parish	**Hepatitis A**	**Hepatitis B**	**Measles**	**Mumps**	**Pertussis**	**Rubella**	**Total**
Louisiana	173	219	0	9	13	1	415
Acadia	28	3	0	0	0	0	31
Allen	0	1	0	0	0	0	1
Ascension	0	2	0	1	0	0	3
Assumption	0	1	0	0	0	0	1
Avoyelles	0	1	0	0	0	0	1
Beauregard	1	0	0	0	1	0	2
Bossier	2	5	0	0	0	0	7
Caddo	13	15	0	1	0	0	29
Calcasieu	2	6	0	0	0	0	8
DeSoto	2	1	0	0	0	0	3
East Baton Rouge	3	15	0	2	1	0	21
East Feliciana	0	1	0	0	0	0	1
Iberia	0	1	0	1	0	0	2
Jefferson	12	27	0	0	4	1	44
Jefferson Davis	6	0	0	0	0	0	6
Lafayette	10	6	0	0	0	0	16
Lafourche	0	3	0	0	0	0	3
Lincoln	1	2	0	0	0	0	3
Livingston	0	4	0	0	0	0	4
Madison	1	0	0	0	0	0	1
Morehouse	2	0	0	0	0	0	2
Natchitoches	2	0	0	0	0	0	2
Orleans	21	61	0	2	1	0	85
Ouachita	26	11	0	0	3	0	40
Plaquemines	1	0	0	0	0	0	1
Pointe Coupee	1	3	0	0	0	0	4
Rapides	3	3	0	0	0	0	6
Red River	1	0	0	0	0	0	1
Richland	1	0	0	0	0	0	1
St. Bernard	1	2	0	1	0	0	4
St. Charles	0	5	0	0	1	0	6
St. Helena	0	1	0	0	0	0	1
St. John the Baptist	1	3	0	0	0	0	4
St. Landry	5	2	0	0	0	0	7
St. Mary	0	1	0	0	0	0	1
St. Tammany	7	6	0	1	0	0	14
Tangipahoa	6	15	0	0	0	0	21
Terrebonne	2	1	0	0	0	0	3
Union	1	0	0	0	0	0	1
Vermilion	0	2	0	0	0	0	2
Vernon	10	2	0	0	2	0	14
Washington	0	5	0	0	0	0	5
West Carroll	1	0	0	0	0	0	1
West Feliciana	0	2	0	0	0	0	2

*Parishes with no cases reported are not included.

Source: Louisiana Office of Public Health, Infectious Disease Epidemiology Program

B. TUBERCULOSIS

Background

Pulmonary Tuberculosis (TB) results from infection with an organism named Mycobacterium tuberculosis. Persons with TB may transmit the organism by coughing. If untreated, the pulmonary TB case may infect others who breathe in the organisms expelled by the infected person. Infection is not limited to the lungs; it can also occur in other regions of the body.

Due to the danger of contagion, individuals who have been exposed to TB should be identified and evaluated. A simple skin test is used to determine if the exposed person has been infected. If the skin test and evaluation reveal that the person has been infected, a course of preventive therapy may be prescribed to protect against progression from TB infection to TB disease. Preventive therapy generally consists of six months of therapy with a single anti-TB drug called isoniazid, or INH.

Treatment of TB disease requires an initial course of four anti-tuberculosis drugs. Length of treatment for TB disease is usually six months, but may vary due to the severity of illness or the presence of other factors, such as HIV. Due to the potentially great public health impact of this infectious disease, and because of the intricacy of the therapy (i.e. length of treatment and number of medications involved), a practice called Directly Observed Therapy (DOT) is employed to assist the patient with his or her therapy and assure completion. With DOT, trained field staff or medical personnel monitor the efficacy of treatment and the patient's compliance with the treatment regimen.

1999 Status

Louisiana reported 357 cases of TB in 1999, for a case rate of 8.2 per 100,000 people. This represents a 6.0% decrease from the 1998 figure of 380 cases (8.7 per 100,000) and a 12.1% decrease since the 1997 report of 406 cases (9.3 per 100,000). Caution should be urged however; decreases over such a short period do not necessarily reflect a trend in tuberculosis control.

Tuberculosis Case Counts
Louisiana, 1995-1999

1995	*1996*	*1997*	*1998*	*1999*
475	420	406	380	357

Source: Louisiana Office of Public Health, Tuberculosis Program

In 1998, Louisiana's state ranking for TB case rates (per 100,000) was still the 8th highest in the nation. Louisiana's 1998 rate was similar to those in neighboring states, but was significantly higher than the national rate of 6.8 per 100,000. The national rate for 1999 is as of yet unavailable; however, the state rate of 8.2 per 100,000 is expected to exceed the United States rate this year as well.

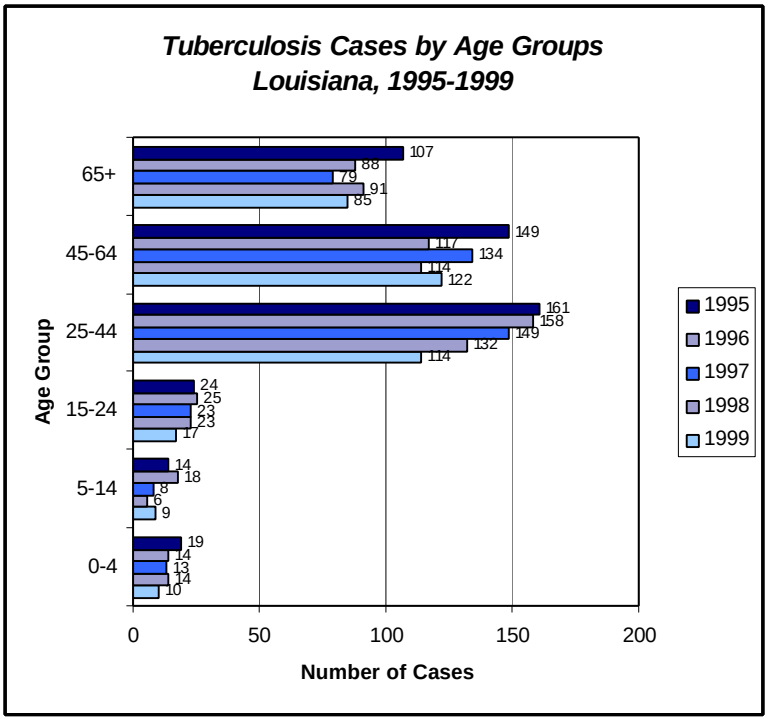
Tuberculosis Cases and Rates* Louisiana and Neighboring States, 1999		
State	Number of Cases	Case Rate
Alabama	314	7.2
Arkansas	181	7.1
Louisiana	357	8.2
Mississippi	215	7.8
Texas	1649	8.2
United States	17,528	6.4

*Rate per 100,000 population

Source: Louisiana Office of Public Health, Tuberculosis Program

Drug-resistant TB continues to be a problem in Louisiana. While only one case of multi-drug-resistant tuberculosis (MDR-TB) was reported in 1999, the incidence of single-drug (INH) resistance continues to exceed 4% -- the recommended threshold for initiating a four-drug anti-TB regimen for new (or suspected) cases of TB.

As shown in the following graph, decreases were observed in each age group, with the exception of a 50% increase in the 5-14 age group (6 cases in 1998 to 9 cases in 1999).



Source: Louisiana Office of Public Health, Tuberculosis Program

Louisiana Tuberculosis Cases and Rates By Region and Parish, 1999		
State Total = 357 State Case Rate = 8.2 per 100,000		
Region/Parish	**Cases**	**Rate/100,000**
Region 1	110	10.9
Jefferson	41	9.1
Orleans	67	14.4
Plaquemines	2	7.6
St. Bernard	0	0.0
Region 2	39	6.8
Ascension	5	7.0
E. Baton Rouge	27	6.8
E. Feliciana	2	9.8
Iberville	1	3.2
Pointe Coupee	2	8.5
W. Baton Rouge	2	9.7
W. Feliciana	0	0.0
Region 3	16	5.4
Assumption	0	0.0
Lafourche	3	3.4
St. Charles	1	2.1
St. James	0	0.0
St. John	1	2.4
St. Mary	3	5.2
Terrebonne	8	7.7
Region 4	37	6.9
Acadia	4	6.9
Evangeline	2	5.9
Iberia	3	4.1
Lafayette	19	10.2
St. Landry	8	9.5
St. Martin	0	0.0
Vermilion	1	1.9
Region 5	19	6.9
Allen	0	0.0
Beauregard	0	0.0
Calcasieu	18	10.0
Cameron	0	0.0
Jefferson Davis	1	3.2
Region 6	12	4.0
Avoyelles	1	2.4
Catahoula	1	9.0
Concordia	2	9.6
Grant	1	5.3
LaSalle	0	0.0
Rapides	5	3.9
Vernon	1	1.9
Winn	1	5.6

Louisiana Tuberculosis Cases and Rates By Region and Parish, 1999		
Region/Parish	**Cases**	**Rate/100,000**
Region 7	51	10.1
Bienville	1	6.3
Bossier	7	7.5
Caddo	28	11.5
Claiborne	2	11.8
DeSoto	0	0.0
Natchitoches	0	0.0
Red River	0	0.0
Sabine	4	16.8
Webster	9	21.1
Region 8	43	12.2
Caldwell	0	0.0
E. Carroll	1	11.2
Franklin	3	13.5
Jackson	1	6.4
Lincoln	1	2.4
Madison	2	15.6
Morehouse	1	3.2
Ouchita	25	17.0
Richland	6	28.5
Tensas	0	0.0
Union	3	13.6
W. Carroll	0	0.0
Region 9	30	7.0
Livingston	5	5.7
St. Helena	1	10.4
St. Tammany	10	5.3
Tangipahoa	6	6.2
Washington	8	18.6

Source: Louisiana Office of Public Health, Tuberculosis Program

C. SEXUALLY TRANSMITTED DISEASES

Overview

Sexually transmitted diseases are the most commonly reported diseases in the United States and affect almost 15.3 million Americans in all population groups each year. By age 21, one in five young adults will have received treatment for an STD. Among the most serious complications are pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer associated with human papillomavirus, fetal and infant deaths, and congenital defects.[1]

STD Rates* and National Rankings** Louisiana, 1995-1999

Year	Primary and Secondary Syphilis		Gonorrhea		Chlamydia	
	Rate	Rank	Rate	Rank	Rate	Rank
1995	24	2	251	10	254	11
1996	13	6	222	8	260	4
1997	9	7	255	5	273	7
1998	10	3	297	4	363	5
1999	7	-	313	-	393	-

*Rates per 100,000 population 1990.

**States ranked from highest to lowest disease incidence. Nationwide figures for 1999 are not yet available.

Sources: Louisiana Office of Public Health, STD Control Program 1999.
CDC STD Surveillance Report 1998.

Syphilis

Syphilis infections are caused by *Treponema pallidum*, aspirochete (bacteria). The primary stage of the disease is characterized by a painless, idurated ulcer that appears at the site(s) of exposure in about 21 days (range of 10-90 days) and lasts from 1 to 5 weeks. The secondary stage, which usually appears 1 to 5 weeks after the primary ulcer has healed, is characterized by skin rash, mucous patches, and condylomata lata, sometimes accompanied by generalized lymphadenopathy, headache, and fever. The latent stage is defined as any interval following the primary stage during which persons have no clinical signs or symptoms.

Louisiana had the 2nd highest rate of syphilis nationwide during 1995; then in 1996 the rate fell to the 6th highest rate, followed by a drop to 7th in 1997. In 1998, the rate rose to the 3rd highest. The total number of cases of early syphilis (primary, secondary, and early latent syphilis) is consistently declining, from 5,373 cases in 1993, to 709 cases in 1999. In 1999, 53% of early syphilis cases occurred in females, and 87% of the cases occurred in African-Americans. Sixty-six percent of early syphilis cases occurred among the 15-34 year-old population.

During the last five years, sharp and consistent declines in early syphilis rates have occurred. In the white population, the rate decreased 40% between 1995 and 1996 and 33% between 1996 and 1997. However, early syphilis rates increased 50% between 1997 and 1998 and remained unchanged in 1999. In African-Americans, the rate decreased 43% between 1995 and 1996, 40% between 1996 and 1997, 6% between 1997 and 1998, and 21% between 1998 and 1999.

[1] National Center for Health Statistics. *Healthy People 2000 Review, 1997*. Hyattsville, Maryland: Public Health Service. 1997.

Early Syphilis (Primary, Secondary, and Early Latent) Rates,* by Sex and Race Louisiana, 1995-1999									
	White			Black			Other		
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total
1995	3	6	5	181	197	189	17	7	12
1996	2	3	3	107	109	108	2	5	4
1997	2	2	2	61	68	65	2	2	2
1998	3	3	3	64	58	61	10	7	9
1999	3	3	3	48	47	48	0	7	4

*Rates per 100,000 population 1990

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana incidence rate for primary and secondary syphilis for 1999 was 9.9 per 100,000 people (Census 1990), and the national rate was 2.6. *The Healthy People 2000 Review 1997* objective for primary and secondary syphilis is to reduce the incidence rate to no more than 4 cases per 100,000 people and the incidence among African-Americans to no more than 30 cases per 100,000.

Primary and Secondary Syphilis Rates* Louisiana, Neighboring States, and United States, 1994-1998					
	1994	1995	1996	1997	1998
Alabama	15.7	14.4	12.4	9.6	6.3
Arkansas	18.2	19.9	10.5	6.9	4.3
Louisiana	39.0	24.0	13.0	8.4	9.9
Mississippi	78.1	72.4	30.4	14.4	9.6
Texas	10.4	8.3	4.8	3.5	2.3
United States	7.9	6.3	4.3	3.2	2.6

*Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program
CDC STD Surveillance Report 1998

Gonorrhea

Infections by *Neisseria gonorrhoeae* may be symptomatic or asymptomatic, and they include genital, anorectal, and pharyngeal infections.

Louisiana had the 10th highest rate of gonorrhea nationwide in 1995. In 1996, Louisiana moved to the 8th highest, then to the 5th highest in 1997, and to the 4th highest in 1998. The total number of cases of gonorrhea had been consistently declining, from 10,816 cases in 1995 to 10,761 cases in 1997, but in 1998 the number rose to 12,543, mainly due to improved laboratory reporting. In 1999, the total number was 13,198. In 1999, 50% of the cases of gonorrhea occurred in females; 86% of cases occurred in African-Americans; 32% of the cases occurred among teens 15-19 year old, and 34% of the cases of gonorrhea occurred among 20-24 year olds.

Gonorrhea Rates* by Sex And Race Louisiana, 1995-1999									
	White			Black			Other		
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total
1995	18	29	23	940	564	740	37	41	39
1996	14	27	21	842	489	655	37	59	48
1997	17	36	27	833	615	717	66	88	78
1998	19	35	28	958	757	851	49	124	88
1999	25	48	37	966	792	874	41	63	52

*Rates per 100,000 population 1990.

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana incidence rate of gonorrhea for 1998 was 297 per 100,000 population (Census 1990), and the national rate for 1998 was 133. *The Healthy People 2000 Review 1997* objective for gonorrhea, is to reduce the rate to: a) an incidence of no more than 100 cases per 100,000 people; b) an incidence of no more than 650 cases per 100,000 among African-Americans; c) an incidence of no more than 375 per 100,000 persons age 15-19, and d) an incidence of no more than 175 per 100,000 persons age 15-44.

Gonorrhea Rates* Louisiana, Neighboring States, and United States, 1994-1998					
State	1994	1995	1996	1997	1998
Alabama	376	345	310	282	295
Arkansas	281	227	204	175	157
Louisiana	291	251	222	255	287
Mississippi	429	353	250	307	392
Texas	162	165	124	139	169
United States	165	149	124	123	133

*Rates per 100,000 population 1990.

Sources: Louisiana Office of Public Health, STD Control Program
CDC STD Surveillance Report 1998

Chlamydia

Infection caused by *Chlamydia trachomatis* is among the most prevalent STDs in the United States. Therapy for these infections is commonly based on the clinical syndrome, or as simultaneous treatment for gonorrhea.

Louisiana had the 11th highest rate of chlamydia nationwide in 1995. Then in 1996, Louisiana rose to the 4th highest rate, and then dropped to the 7th highest in 1997. In 1998 Louisiana had the 5th highest rate. The total number of cases of chlamydia had been declining, from 11,079 cases in 1993 to 10,727 cases in 1995, but went slightly up to 10,991 in 1996, up to 11,512 in 1997, and rose to 15,305 in 1998 and 16,573 in 1999. In 1999, 79% of chlamydia cases occurred in females; 74% of cases occurred in African-Americans; 42% of cases among 15-19 year-olds, and 36% of the chlamydia cases occurred among 20-24 year-olds.

The Louisiana chlamydia rate for 1998 was 349 per 100,000 population (Census 1990), and the national rate for 1998 was 236.6. *The Healthy People 2000 Review 1997* objective for chlamydia trachomatis infections is to reduce the prevalence in women under 25 years of age to no more than 5% (as measured by a decrease in the prevalence of chlamydia infection among family planning clients).

Chlamydia Rates* by Sex and Race Louisiana, 1995-1999									
	White			Black			Other		
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total
1995	12	102	58	251	1011	657	37	176	106
1996	14	27	21	842	489	655	37	59	48
1997	17	36	27	833	615	717	66	88	78
1998	25	125	76	411	1360	919	71	278	174
1999	30	141	87	448	1369	941	24	198	111

*Rates per 100,000 population 1990.

Source: Louisiana Office of Public Health, STD Control Program

Chlamydia Rates* Louisiana, Neighboring States, and United States, 1994-1998					
State	1994	1995	1996	1997	1998
Alabama	12	75	195	204	233
Arkansas	28	32	27	85	163
Louisiana	262	254	260	363	349
Mississippi	NR**	34	161	291	389
Texas	251	238	230	265	311
United States	193.3	190.4	194.5	207.0	236.6

*Rates per 100,000 population

**NR=No report

Sources: Louisiana Office of Public Health, STD Control Program
CDC STD Surveillance Report 1998

Sexually Transmitted Disease Rates* by Parish Louisiana, 1999			
Parish	Early Syphilis (Primary, Secondary, and Early Latent)	Gonorrhea	Chlamydia
Acadia	32	175	150
Allen	5	75	245
Ascension	48	136	213
Assumption	35	180	436
Avoyelles	0	72	66
Beauregard	7	90	186
Bienville	6	275	513
Bossier	3	186	314
Caddo	7	774	754
Calcasieu	57	335	328
Caldwell	0	163	306
Cameron	0	97	184
Catahoula	0	90	163
Claiborne	0	241	454
Concordia	0	110	163
DeSoto	0	422	525
East Baton Rouge	19	359	337
East Carroll	10	443	628
East Feliciana	0	141	187
Evangeline	0	183	267
Franklin	0	107	228
Grant	0	23	34

*Rates per 100,000 population 1990

Sexually Transmitted Disease Rates* by Parish Louisiana, 1999			
Parish	Early Syphilis (Primary, Secondary, and Early Latent)	Gonorrhea	Chlamydia
Iberia	42	466	466
Iberville	16	138	209
Jackson	0	236	369
Jefferson	9	132	239
Jefferson Davis	0	192	322
Lafayette	29	262	367
Lafourche	82	172	227
LaSalle	0	22	66
Lincoln	0	362	493
Livingston	13	54	139
Madison	0	329	706
Morehouse	6	523	539
Natchitoches	8	559	801
Orleans	23	566	769
Ouachita	4	525	562
Plaquemines	8	78	102
Pointe Coupee	53	169	315
Rapides	4	259	401
Red River	21	586	1097
Richland	5	271	475
Sabine	0	199	358
St. Bernard	3	47	122
St. Charles	12	94	191
St. Helena	0	243	425
St. James	10	192	421
St. John	20	275	470
St. Landry	9	344	336
St. Martin	0	171	246
St. Mary	14	210	293
St. Tammany	10	119	107
Tangipahoa	19	511	614
Tensas	0	267	338
Terrebonne	38	288	364
Union	0	280	319
Vermilion	0	118	104
Vernon	6	97	242
Washington	16	340	245
Webster	0	269	433
West Baton Rouge	15	113	129
West Carroll	0	41	149
West Feliciana	8	77	163
Winn	6	68	123
State Total	17	313	393

*Rates per 100,000 population 1990

Source: Louisiana Office of Public Health, STD Control Program

D. HIV/AIDS

1998 Status

Louisiana's rank increased from 9th highest in 1997 to 7th highest in 1998 and is among states with the highest AIDS (Acquired Immunodeficiency Syndrome) rates. Among United States cities, New Orleans ranked 11th and Baton Rouge ranked 14th highest.

HIV/AIDS is a growing threat to public health and will continue to make major demands on our health and social service systems for many decades. The lifetime medical cost of caring for a person with AIDS is over $100,000, most of which is paid by the government. Each year new infections obligate Louisiana to $150 million in future medical costs.

New highly active antiretroviral therapies (HAART) have been shown to be effective in the treatment of HIV (Human Immunodeficiency Virus) infection. These new therapies have altered the natural history of HIV infection, slowing progression from HIV to AIDS and from AIDS to death for persons infected with HIV. While HAART contributes to the recent reduction in morbidity and mortality among HIV-infected persons, the prevalence of HIV continues to increase and resources should continue to be directed toward programs and services that address prevention, early detection, and effective treatment.

In keeping with national trends, Louisiana has seen an increase in HIV/AIDS cases in minorities, adolescents, women, high-risk heterosexuals, and intravenous drug users and in rural communities. HIV/AIDS has been steadily on the rise in the heterosexual population – HIV/AIDS cases due to high-risk heterosexual contact increased from less than 5% in 1990 to an estimated 26% in 1998. High-risk heterosexual contact is becoming the leading exposure among African-Americans. However, the majority of all cases continue to be in men who have sex with men.

The gap between the case rate of African-American individuals and white individuals continues to increase. During 1998, 73% of newly-detected HIV/AIDS cases and 70% of newly-diagnosed AIDS cases were in African-Americans. The HIV detection rates for African-Americans are over five times higher than those among whites and two times higher than those among Hispanics.

Despite the increasing number of women infected with HIV, the number of pediatric HIV/AIDS cases (children diagnosed when younger than thirteen years of age) has been decreasing in recent years. This decline is credited to improved treatment protocols for HIV-infected pregnant women and increased use of antiretrovirals in this same group.

Persons Living with Diagnosed HIV/AIDS, by Risk Factor
Louisiana, 1994-1998

	Diagnosed by and Living in Year				
Risk Behavior	***1994***	***1995***	***1996***	***1997***	***1998***
Total Living Cases	8,508	9,255	10,002	10,788	11,604
Cases with Specified Risk	7,141	7,527	7,787	8,018	8,331
MSM*	60%	58%	55%	54%	53%
IDU*	23%	24%	25%	25%	25%
HRH*	14%	15%	16%	18%	18%
Transf/Hemo*	2%	2%	2%	2%	2%
Perinatal	1%	2%	2%	2%	2%
Risk Unknown/Still under Investigation	1,367	1,728	2,215	2,770	3,273

* MSM: Men who have Sex with Men; IDU: Injection Drug Users (non-MSM);
HRH: High Risk Heterosexual; Transf/Hemo: Transfusion/Transplant/Hemophiliac
Source: Louisiana Office of Public Health, HIV/AIDS Program

AIDS Cases and Rates Louisiana, Neighboring States, and United States, 1996-1998									
State	1996		1997		1998		Cumulative Totals		
	Cases	Rate/ 100,000	Cases	Rate/ 100,000	Cases	Rate/ 100,000	Adults	Children less than 13	Total
Alabama	607	14.2	568	13.1	484	11.1	5,251	67	5,318
Arkansas	267	10.7	242	9.6	203	8	2,553	38	2,591
Louisiana	1,463	33.7	1,090	25	951	21.8	11,018	118	11,136
Mississippi	450	16.6	345	12.6	415	15.1	3,562	53	3,615
Texas	4,799	25.1	4,672	24.1	3,967	20.1	47,994	356	48,350
United States	68,808	25.5	60,270	22.1	48,269	17.6	679,739	8,461	688,200

Source: Louisiana Office of Public Health, HIV/AIDS Program

E. CANCER

1993-1997 Status

According to the AMERICAN CANCER SOCIETY, one in every four deaths in the United States is attributable to cancer. More people are surviving cancer now than ever before, but this trend is not true for all groups. Survival rates can vary according to race.

Due to the possibility of natural fluctuations in cancer incidence during the course of a year, disease counts and rates have been combined to encompass a five-year period. This allows a more reliable identification of the cancers that are of most concern in our state.

Five Most Common Cancers Louisiana, 1993-1997	
Type	Number of Cases
All Cancers	91,992
Lung	16,087
Prostate	14,202
Breast	12,753
Colon & Rectum	10,835
Bladder	3,507

Source: Louisiana Tumor Registry

The risk for many cancers can be significantly reduced by practicing preventive measures. The National Cancer Institute estimates that tobacco accounts for 30% of cancers, and dietary factors account for another 35%. For example, most of the lung cancers can be prevented by not smoking, and diets low in fat and high in fiber may help prevent colon, rectal, breast, prostate, and other cancers.

Both preventive measures and early detection are important in lowering cancer death rates. Mammography, clinical breast examination, Pap tests, fecal occult blood tests, and proctosigmoidoscopy (colon exam with lighted scope) make it possible to detect and treat cancers in their early stages and prevent spreading. However, despite modern technology and knowledge, a significant portion of the population at risk for various cancers fails to participate in screening procedures.[2]

[2] *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. United States Department of Health and Human Services. Washington: GPO, 1990.

Cancer is not just one, but many, diseases and is associated with a variety of risk factors. Since 1950, overall cancer mortality rates have changed little, but there have been significant changes in mortality for some age groups and cancers. Several prevalent forms of cancer can be either prevented or – in the case of breast or prostate cancer – diagnosed early enough to prevent the spread to other organs.

Five Most Common Cancers in Males
Louisiana, 1993-1997

Whites		*Blacks*		*Total **	
Type	*Rate***	*Type*	*Rate***	*Type*	*Number*
All Cancers	489.6	All Cancers	564.9	All Cancers	49,135
Prostate	136.6	Prostate	183.6	Prostate	14,102
Lung	100.5	Lung	131.3	Lung	10,565
Colon & Rectum	55.1	Colon & Rectum	53.6	Colon & Rectum	5,176
Bladder	30.1	Stomach	19.8	Bladder	2,548
Non-Hodgkin's Lymphoma	18.9	Oral Cavity & Pharynx	18.2	Non-Hodgkin's Lymphoma	1,690

* All races combined

** Average annual age-adjusted (1970 US) incidence rates per 100,000 population (1992-1996)

Source: Louisiana Tumor Registry

Five Most Common Cancers in Females
Louisiana, 1993-1997

Whites		*Blacks*		*Total **	
Type	*Rate***	*Type*	*Rate***	*Type*	*Number*
All Cancers	322.1	All Cancers	310.2	All Cancers	41,452
Breast	100.5	Breast	87.7	Breast	12,199
Lung	47.0	Lung	39.2	Lung	5,702
Colon & Rectum	46.4	Colon & Rectum	41.6	Colon & Rectum	5,367
Corpus Uteri	13.9	Cervix Uteri	16.7	Corpus Uteri	1,720
Non-Hodgkin's Lymphoma	12.8	Corpus Uteri	12.9	Non-Hodgkin's Lymphoma	1,525

* All races combined

** Average annual age-adjusted (1970 US) incidence rates per 100,000 population (1992-1996)

Source: Louisiana Tumor Registry

Background[3]

Breast cancer is the most frequently occurring invasive cancer among women in the United States and is second only to lung cancer in cancer-related deaths. Nationwide, the death rate from breast cancer decreased 6% between 1987-91 and 1992-96. Certain factors—such as family history, exposure to hormones, reproduction issues, and excessive alcohol use—can influence the risk for breast cancer. The association between high-fat diets and increased breast cancer risk has not been firmly established. It has recently been discovered that alterations in two genes can account for most inherited breast cancer, which constitutes 5-10% of all breast cancers. Early detection improves the chances of survival, and the National Cancer Institute recommended in 1997 that women in their forties or older get screening mammograms on a regular basis, every one to two years. Women who are at increased risk for breast cancer should seek medical advice about when to begin having mammograms and how often to be screened.

[3] From National Cancer Institute (NCI) and American Cancer Society resources and publications. Statistics quoted pertain to the United States.

Cervical cancer (cervix uteri) afflicts 13,000 women each year. Increased use of the Pap test has contributed to an almost 50 percent drop in cervical cancer deaths since 1973. Women who are or have been sexually active, or have reached age 18, should have Pap tests and physical exams regularly.

Colorectal cancer was the second leading cause of cancer death, third among men and third in women, in 1992-96. Studies have shown that lifestyle factors may cause colon and rectum cancers. A diet high in fruits, vegetables, and fiber and low in fat appears to reduce the risk of colorectal cancer. Exercise may also lower risk for this cancer. Although there is no general agreement that screening for colon cancer definitely reduces mortality, annual fecal occult blood tests have proved useful in identifying people who should have further tests to rule out colon cancer and other diseases, especially for those over 50. The potential benefit of regular sigmoidoscopies is currently being investigated by NCI.

Kidney cancer accounted for approximately 2% of all new 1992-96 cancers in the United States. Renal cell cancer and renal pelvis cancer accounted for 70% and 15% of kidney cases respectively, with the remainder being primarily composed of cancer of the ureter (8%) and urethra (4%). While abuse of analgesics has been causally linked to increased risk, and beverages such as coffee, tea, and alcoholic drinks have not been found to be important risk factors, a consistent risk factor has been obesity. Perhaps the best known factor is cigarette smoking. Given the present knowledge about cancers of the kidney, prevention is best achieved by cessation of cigarette smoking. About one-third of renal cell cancers and more than one-half of renal pelvis and ureter cancers could be avoided by eliminating the use of tobacco.

Leukemias together accounted for 2.5% of the total 1992-96 cancer incidence in the United States and about one-third of cancers in children. Five main types (and an increasing number of subtypes) have been identified. Rates for all types of leukemia are higher among males than among females; for most leukemias, rates are higher among Caucasians than African-Americans.

Lung cancer is the largest single cause of cancer mortality in the United States. It is difficult to detect and hard to treat, and in 1992-96 caused approximately 30% of all cancer deaths. Smoking is responsible for 85% of lung cancers. The risk of dying of lung cancer is 22 times higher for male smokers and 12 times higher for female smokers than for people who have never smoked. Unfortunately, smoking rates have begun to rise in children over the last several years.

Melanoma of the skin incidence has increased dramatically over the last several decades. It represented only about 5% of all 1992-96 skin cancers in the United States but was responsible for about 75% of all skin cancer deaths. Survival rates have been increasing because of earlier diagnoses, but the total mortality rate continues to rise with the increase in incidence.

Non-Hodgkin's lymphoma cases have been increasing continuously but inexplicably over the past several decades, but the rate of increase apparently slowed in the 1990s. Part of this increase is due to AIDS-related cases. The cofactors that predispose AIDS cases to lymphoma need elucidation, and research is needed into other possible causes, such as hair-coloring products, pesticides, nitrates, solvents, other industrial chemicals, and viruses other than HIV.

Oral cavity & pharynx cancer accounted for approximately 3% of all malignancies in 1992-96. In Americans, oral cancer is 2-3 times more common among males than females. Tobacco and alcohol account for approximately three-fourths of all oral cancers in the United States. Epidemiologic evidence indicates that smoking and drinking are independent risk factors that produce a synergistic effect when combined. Use of snuff is a primary cause of cancers of the

gum and cheek. Although not as prevalent, habitual use of pipes, cigars, and smokeless tobacco is associated with relative risks as great as that for cigarette smoking.

Ovarian cancer strikes almost 25,000 women every year. Currently, the five-year survival rate is approximately 50%. The NCI is conducting a study to determine whether screening can detect the cancer early enough to reduce mortality.

Pancreatic cancer is a 'silent' disease that is asymptomatic until well advanced. Survival is poor; only about 4% of patients are alive five years after diagnosis. In 1992-96 it ranked 11th of all cancers in the United States for incidence but was fifth for cancer mortality. Little is known about the etiology, and the only established risk factor is cigarette smoking.

Prostate cancer is the most frequently diagnosed invasive cancer in men but is a distant second to lung cancer as a cause of death. There is increasing evidence that diet plays an important role in prostate cancer development. Hormones are also being investigated, as well as occupational and other lifestyle factors. The NCI is currently conducting a study to determine whether regular screening with a digital rectal exam and a blood test for prostate-specific antigen (PSA) is beneficial.

Uterine cancer (corpus uteri), the fourth most common cancer in among women in the United States, accounted for approximately 6% of all 1992-96 cases. However, a limited number of deaths results from this disease, as reflected in a high five-year survival rate of 84%.

Urinary bladder cancer was the fifth most common of all 1992-96 cancers in the United States, where it is chiefly a disease of white men over 65. The most important known risk factor is cigarette smoking; smokers demonstrate a 2-3 fold increased risk over non-smokers. Workers who are exposed to benzidine and 2-naphthylamine are believed to be at an elevated risk for bladder cancer due to the potent carcinogenicity of these two chemicals. Artificial sweeteners do not appear to increase risk, and coffee drinking appears to have little or no effect.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Louisiana	All Cancers	91,992	All Cancers	49,388	All Cancers	42,604
	Lung	16,087	Prostate	14,202	Breast	12,605
	Prostate	14,202	Lung	10,181	Lung	5,906
	Breast	12,753	Colon & Rectum	5,401	Colon & Rectum	5,434
	Colon & Rectum	10,835	Bladder	2,552	Corpus Uteri	1,785
	Bladder	3,507	Non-Hodgkin's Lymphoma	1,752	Non-Hodgkin's Lymphoma	1,626
Region 1	All Cancers	23,089	All Cancers	12,063	All Cancers	11,026
	Lung	3,985	Prostate	3,253	Breast	3,320
	Breast	3,358	Lung	2,408	Lung	1,577
	Prostate	3,253	Colon & Rectum	1,314	Colon & Rectum	1,445
	Colon & Rectum	2,759	Bladder	684	Corpus Uteri	442
	Bladder	932	Non-Hodgkin's Lymphoma	498	Non-Hodgkin's Lymphoma	397
Jefferson	All Cancers	9,826	All Cancers	5,101	All Cancers	4,725
	Lung	1,647	Prostate	1,424	Breast	1,440
	Breast	1,456	Lung	954	Lung	693
	Prostate	1,424	Colon & Rectum	568	Colon & Rectum	586
	Colon & Rectum	1,154	Bladder	338	Non-Hodgkin's Lymphoma	196
	Bladder	437	Non-Hodgkin's Lymphoma	222	Corpus Uteri	183
Orleans	All Cancers	11,188	All Cancers	5,870	All Cancers	5,318
	Lung	1,914	Prostate	1,586	Breast	1,620
	Breast	1,638	Lung	1,195	Colon & Rectum	725
	Prostate	1,586	Colon & Rectum	619	Lung	194
	Colon & Rectum	1,344	Bladder	276	Corpus Uteri	224
	Bladder	400	Non-Hodgkin's Lymphoma	229	Cervix Uteri	203
Plaquemines	All Cancers	460	All Cancers	258	All Cancers	202
	Lung	93	Lung	65	Breast	62
	Breast	63	Prostate	60	Lung	28
	Prostate	60	Colon & Rectum	23	Colon & Rectum	20
	Colon & Rectum	43	Oral Cavity & Pharynx	18	Non-Hodgkin's Lymphoma / Corpus Uteri	7*
	Bladder	22	Bladder	16	Stomach / Skin Melanomas / Bladder / Pancreas	6*

*Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
St. Bernard	All Cancers	1,615	All Cancers	834	All Cancers	781
	Lung	331	Lung	194	Breast	198
	Colon & Rectum	218	Prostate	183	Lung	137
	Breast	201	Colon & Rectum	104	Colon & Rectum	114
	Prostate	183	Bladder	54	Non-Hodgkin's Lymphoma	37
	Non-Hodgkin's Lymphoma	75	Non-Hodgkin's Lymphoma	38	Ovary	30
Region 2	All Cancers	11,379	All Cancers	6,325	All Cancers	5.054
	Prostate	2,195	Prostate	2,195	Breast	1,638
	Lung	1,725	Lung	1,082	Lung	643
	Breast	1,664	Colon & Rectum	687	Colon & Rectum	642
	Colon & Rectum	1,329	Bladder	336	Corpus Uteri	210
	Bladder	436	Non-Hodgkin's Lymphoma	209	Non-Hodgkin's Lymphoma	172
Ascension	All Cancers	1,145	All Cancers	653	All Cancers	492
	Prostate	226	Prostate	226	Breast	146
	Lung	181	Lung	112	Lung	69
	Breast	149	Colon & Rectum	64	Colon & Rectum	62
	Colon & Rectum	126	Bladder	34	Ovary	23
	Bladder	43	Kidney & Renal Pelvis	25	Corpus Uteri	17
East Baton Rouge	All Cancers	7,780	All Cancers	4,252	All Cancers	3,528
	Prostate	1,515	Prostate	1,515	Breast	1,166
	Breast	1,183	Lung	712	Colon & Rectum	451
	Lung	1,059	Colon & Rectum	470	Lung	447
	Colon & Rectum	921	Bladder	226	Corpus Uteri	144
	Bladder	294	Non-Hodgkin's Lymphoma	137	Non-Hodgkin's Lymphoma	130
East Feliciana	All Cancers	495	All Cancers	291	All Cancers	204
	Prostate	99	Prostate	99	Breast	72
	Lung	77	Lung	59	Colon & Rectum	23
	Breast	73	Colon & Rectum	33	Lung	18
	Colon & Rectum	56	Bladder	12	Corpus Uteri	14
	Bladder	18	Oral Cavity & Pharynx / Non-Hodgkin's Lymphoma	10*	Pancreas / Non-Hodgkin's Lymphoma	7*

*Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Iberville	All Cancers	735	All Cancers	421	All Cancers	314
	Prostate	137	Prostate	137	Breast	94
	Lung	114	Lung	68	Lung	46
	Breast	95	Colon & Rectum	38	Colon & Rectum	35
	Colon & Rectum	73	Bladder	25	Cervix Uteri	17
	Bladder	30	Kidney & Renal Pelvis / Non-Hodgkin's Lymphoma	16*	Corpus Uteri	14
Pointe Coupee	All Cancers	539	All Cancers	311	All Cancers	228
	Prostate	91	Prostate	91	Breast	69
	Colon & Rectum	79	Lung	54	Colon & Rectum	43
	Lung	77	Colon & Rectum	36	Lung	23
	Breast	70	Bladder	18	Kidney & Renal Pelvis / Corpus Uteri / Ovary / Pancreas	7*
	Bladder	23	Oral Cavity & Pharynx	12	Cervix Uteri	6
West Baton Rouge	All Cancers	467	All Cancers	248	All Cancers	219
	Prostate	82	Prostate	82	Breast	72
	Breast	73	Lung	43	Lung	28
	Lung	71	Colon & Rectum	30	Colon & Rectum	23
	Colon & Rectum	53	Bladder	17	Corpus Uteri / Ovary	11*
	Bladder	22	Pancreas	12	Non-Hodgkin's Lymphoma / Pancreas	7*
West Feliciana	All Cancers	218	All Cancers	149	All Cancers	69
	Lung	46	Prostate	45	Breast	19
	Prostate	45	Lung	34	Lung	123
	Colon & Rectum / Breast	21*	Colon & Rectum	16	Colon & Rectum / Cervix Uteri	5*
	Non-Hodgkin's Lymphoma	10	Oral Cavity & Pharynx / Non-Hodgkin's Lymphoma	7*	**	**
	Oral Cavity & Pharynx / Brain	7*	**	**	**	**

* Number of cases is the same at each site.

** Contents of cells containing fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Region 3	All Cancers	6,661	All Cancers	3,726	All Cancers	2,935
	Lung	1,202	Prostate	970	Breast	897
	Prostate	970	Lung	820	Lung	382
	Breast	906	Colon & Rectum	438	Colon & Rectum	367
	Colon & Rectum	805	Bladder	205	Corpus Uteri	124
	Bladder	285	Non-Hodgkin's Lymphoma	154	Non-Hodgkin's Lymphoma	115
Assumption	All Cancers	433	All Cancers	245	All Cancers	188
	Prostate	76	Prostate	76	Breast	65
	Lung	74	Lung	56	Colon & Rectum	21
	Breast	65	Colon & Rectum	26	Lung	18
	Colon & Rectum	47	Bladder	17	Cervix Uteri	8
	Bladder	22	Pancreas	9	Pancreas / Thyroid / Corpus Uteri / Non-Hodgkin's Lymphoma	6*
Lafourche	All Cancers	1,510	All Cancers	828	All Cancers	682
	Lung	287	Prostate	210	Breast	203
	Prostate / Colon & Rectum	210*	Lung	189	Lung / Colon & Rectum	98*
	Breast	206	Colon & Rectum	112	Non-Hodgkin's Lymphoma	37
	Non-Hodgkin's Lymphoma	72	Bladder	48	Corpus Uteri	29
	Bladder	64	Non-Hodgkin's Lymphoma	35	Kidney & Renal Pelvis	18
St. Charles	All Cancers	780	All Cancers	428	All Cancers	352
	Prostate	126	Prostate	126	Breast	114
	Lung	124	Lung	76	Lung	48
	Breast	115	Colon & Rectum	52	Colon & Rectum	44
	Colon & Rectum	96	Non-Hodgkin's Lymphoma / Bladder	17*	Ovary	14
	Non-Hodgkin's Lymphoma	26	Oral Cavity & Pharynx / Leukemias	15*	Kidney & Renal Pelvis / Pancreas / Corpus Uteri	11*

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
St. James	All Cancers	432	All Cancers	239	All Cancers	193
	Prostate / Lung / Breast	68*	Prostate	68	Breast	68
	Colon & Rectum	42	Lung	49	Colon & Rectum	22
	Kidney & Renal Pelvis	20	Colon & Rectum	20	Lung	19
	Bladder	17	Bladder	15	Corpus Uteri / Kidney & Renal Pelvis	10*
	Pancreas	16	Non-Hodgkin's Lymphoma / Kidney & Renal Pelvis	10*	Pancreas	8
St. John	All Cancers	667	All Cancers	363	All Cancers	304
	Prostate	112	Prostate	112	Breast	94
	Lung	111	Lung	67	Lung	44
	Breast	96	Colon & Rectum	38	Colon & Rectum	35
	Colon & Rectum	73	Bladder	15	Non-Hodgkin's Lymphoma	13
	Bladder	26	Oral Cavity & Pharynx / Kidney & Renal Pelvis	13*	Bladder / Corpus Uteri / Cervix Uteri	11*
St. Mary	All Cancers	1,137	All Cancers	656	All Cancers	481
	Lung	192	Prostate	178	Breast	132
	Prostate	178	Lung	135	Colon & Rectum	60
	Breast	132	Colon & Rectum	64	Lung	57
	Colon & Rectum	124	Bladder	45	Corpus Uteri	20
	Bladder	61	Non-Hodgkin's Lymphoma	21	Cervix Uteri / Leukemias	17*
Terrebonne	All Cancers	1,702	All Cancers	967	All Cancers	735
	Lung	346	Lung	248	Breast	221
	Breast	224	Prostate	200	Lung	98
	Colon & Rectum	213	Colon & Rectum	126	Colon & Rectum	87
	Prostate	200	Non-Hodgkin's Lymphoma	54	Corpus Uteri	37
	Non-Hodgkin's Lymphoma	83	Bladder	48	Non-Hodgkin's Lymphoma	29

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Region 4	All Cancers	10,921	All Cancers	5,663	All Cancers	5,258
	Lung	2,019	Prostate	1,352	Breast	1,571
	Breast	1,583	Lung	1,292	Lung	727
	Prostate	1,352	Colon & Rectum	641	Colon & Rectum	616
	Colon & Rectum	1,257	Bladder	269	Non-Hodgkin's Lymphoma	208
	Non-Hodgkin's Lymphoma	421	Oral Cavity & Pharynx	218	Corpus Uteri	202
Acadia	All Cancers	1,364	All Cancers	717	All Cancers	647
	Lung	236	Prostate	174	Breast	190
	Breast	190	Lung	149	Colon & Rectum	90
	Colon & Rectum	185	Colon & Rectum	95	Lung	87
	Prostate	174	Bladder	36	Corpus Uteri	31
	Bladder	51	Oral Cavity & Pharynx	28	Leukemias	29
Evangeline	All Cancers	759	All Cancers	379	All Cancers	380
	Lung	153	Lung	97	Breast	95
	Breast	95	Prostate	83	Lung	56
	Colon & Rectum	89	Colon & Rectum	41	Colon & Rectum	48
	Prostate	83	Bladder	19	Pancreas	20
	Pancreas	37	Pancreas	17	Corpus Uteri	16
Iberia	All Cancers	1,549	All Cancers	815	All Cancers	734
	Lung	277	Prostate	225	Breast	214
	Prostate	225	Lung	168	Lung	109
	Breast	216	Colon & Rectum	106	Colon & Rectum	82
	Colon & Rectum	188	Oral Cavity & Pharynx	35	Corpus Uteri	32
	Oral Cavity & Pharynx	49	Bladder	27	Cervix Uteri	29
Lafayette	All Cancers	3,224	All Cancers	1,608	All Cancers	1,616
	Lung	550	Lung	358	Breast	535
	Beast	539	Prostate	334	Lung	192
	Colon & Rectum	341	Colon & Rectum	173	Colon & Rectum	168
	Prostate	334	Bladder	90	Non-Hodgkin's Lymphoma	71
	Non-Hodgkin's Lymphoma	144	Non-Hodgkin's Lymphoma	73	Pancreas	59

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
St. Landry	All Cancers	1,920	All Cancers	1,006	All Cancers	914
	Lung	379	Prostate	263	Breast	261
	Breast	265	Lung	242	Lung	137
	Prostate	263	Colon & Rectum	112	Colon & Rectum	117
	Colon & Rectum	229	Bladder	50	Pancreas	45
	Pancreas	79	Pancreas	34	Non-Hodgkin's Lymphoma	39
St. Martin	All Cancers	869	All Cancers	463	All Cancers	406
	Lung	191	Lung	128	Breast	115
	Breast	115	Prostate	98	Lung	63
	Colon & Rectum	99	Colon & Rectum	53	Colon & Rectum	46
	Prostate	98	Bladder	21	Cervix Uteri	18
	Non-Hodgkin's Lymphoma	34	Pancreas	19	Corpus Uteri / Non-Hodgkin's Lymphoma	16*
Vermilion	All Cancers	1,236	All Cancers	675	All Cancers	561
	Lung	233	Prostate	175	Breast	161
	Prostate	175	Lung	150	Lung	83
	Breast	163	Colon & Rectum	61	Colon & Rectum	65
	Colon & Rectum	126	Non-Hodgkin's Lymphoma	30	Non-Hodgkin's Lymphoma	31
	Non-Hodgkin's Lymphoma	61	Oral Cavity & Pharynx	28	Corpus Uteri	24
Region 5	All Cancers	5,651	All Cancers	3,024	All Cancers	2,627
	Lung	1,032	Prostate	826	Breast	721
	Prostate	826	Lung	618	Lung	414
	Breast	729	Colon & Rectum	331	Colon & Rectum	336
	Colon & Rectum	667	Bladder	202	Corpus Uteri	109
	Bladder	271	Skin Melanomas	118	Non-Hodgkin's Lymphoma	103
Allen	All Cancers	428	All Cancers	238	All Cancers	190
	Lung	93	Lung	60	Breast	49
	Prostate	57	Prostate	57	Lung	33
	Breast	50	Colon & Rectum	21	Colon & Rectum	25
	Colon & Rectum	46	Oral Cavity & Pharynx	12	Cervix Uteri / Ovary	7*
	Oral Cavity & Pharynx	17	Non-Hodgkin's Lymphoma	11	Corpus Uteri	6

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Beauregard	All Cancers	630	All Cancers	328	All Cancers	302
	Lung	112	Prostate	91	Breast	81
	Prostate	91	Lung	65	Lung	47
	Breast	82	Colon & Rectum	37	Colon & Rectum	35
	Colon & Rectum	72	Bladder	25	Cervix Uteri / Non-Hodgkin's Lymphoma	15*
	Bladder	34	Non-Hodgkin's Lymphoma	13	Corpus Uteri	12
Calcasieu	All Cancers	3,775	All Cancers	2,053	All Cancers	1,722
	Lung	665	Prostate	570	Breast	481
	Prostate	570	Lung	403	Lung	262
	Breast	486	Colon & Rectum	231	Colon & Rectum	230
	Colon & Rectum	461	Bladder	142	Non-Hodgkin's Lymphoma	68
	Bladder	189	Skin Melanomas	89	Corpus Uteri	65
Cameron	All Cancers	154	All Cancers	78	All Cancers	76
	Lung	34	Lung	23	Breast	27
	Breast	27	Prostate	16	Lung	11
	Prostate	16	Colon & Rectum / Bladder	6*	Colon & Rectum	7
	Colon & Rectum	13	Leukemias	5	**	**
	Bladder	8	**	**	**	**
Jefferson Davis	All Cancers	664	All Cancers	327	All Cancers	337
	Lung	128	Prostate	92	Breast	83
	Prostate	92	Lung	67	Lung	61
	Breast	84	Colon & Rectum	36	Colon & Rectum	39
	Colon & Rectum	75	Bladder	19	Corpus Uteri	23
	Bladder	27	Oral Cavity & Pharynx / Non-Hodgkin's Lymphoma	12*	Pancreas	15

* Number of cases is the same art each site.

** Contents of cells containing fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Region 6	All Cancers	6,046	All Cancers	3,265	All Cancers	2,781
	Lung	1,149	Prostate	881	Breast	727
	Prostate	881	Lung	738	Lung	411
	Colon & Rectum	765	Colon & Rectum	394	Colon & Rectum	371
	Breast	739	Bladder	161	Non-Hodgkin's Lymphoma	125
	Bladder	225	Oral Cavity & Pharynx	110	Corpus Uteri	111
Avoyelles	All Cancers	841	All Cancers	485	All Cancers	356
	Lung	171	Prostate / Lung	119*	Breast	85
	Prostate	119	Colon & Rectum	69	Lung	52
	Colon & Rectum	117	Pancreas	21	Colon & Rectum	48
	Breast	86	Kidney & Renal Pelvis / Bladder	19*	Cervix Uteri	17
	Pancreas	33	Leukemias	13	Non-Hodgkin's Lymphoma	15
Catahoula	All Cancers	206	All Cancers	127	All Cancers	79
	Lung	41	Prostate	38	Breast	19
	Prostate	38	Lung	28	Colon & Rectum	14
	Colon & Rectum	24	Colon & Rectum	10	Lung	13
	Breast	20	Bladder	7	Pancreas	7
	Pancreas	11	Pancreas	**	Corpus Uteri	**
Concordia	All Cancers	348	All Cancers	166	All Cancers	182
	Lung	82	Lung	47	Breast	45
	Colon & Rectum	51	Prostate	42	Lung	35
	Breast	45	Colon & Rectum	24	Colon & Rectum	27
	Prostate	42	Pancreas	9	Corpus Uteri	10
	Pancreas	18	Oral Cavity & Pharynx	6	Pancreas	9
Grant	All Cancers	394	All Cancers	215	All Cancers	179
	Lung	83	Prostate	65	Breast	48
	Prostate	65	Lung	53	Lung	30
	Colon & Rectum	52	Colon & Rectum	25	Colon & Rectum	27
	Breast	49	Non-Hodgkin's Lymphoma	12	Corpus Uteri	11
	Non-Hodgkin's Lymphoma	19	Esophagus	8	Ovary	9

* Number of cases is the same for all sites.

** Contents of cells with fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
LaSalle	All Cancers	382	All Cancers	218	All Cancers	164
	Lung	68	Prostate	67	Breast	43
	Prostate	67	Lung	43	Lung	25
	Breast	43	Colon & Rectum	21	Colon & Rectum	15
	Colon & Rectum	36	Bladder	17	Non-Hodgkin's Lymphoma	12
	Bladder/ Non-Hodgkin's Lymphoma	20*	Non-Hodgkin's Lymphoma	8	Skin Melanomas	7
Rapides	All Cancers	2,723	All Cancers	1,467	All Cancers	1,256
	Lung	474	Prostate	402	Breast	360
	Prostate	402	Lung	302	Lung	172
	Breast	366	Colon & Rectum	186	Colon & Rectum	158
	Colon & Rectum	344	Bladder	73	Non-Hodgkin's Lymphoma	58
	Bladder	107	Oral Cavity & Pharynx	61	Corpus Uteri	52
Vernon	All Cancers	716	All Cancers	351	All Cancers	365
	Lung	146	Lung	91	Breast	88
	Colon & Rectum	96	Prostate	79	Colon & Rectum	57
	Breast	90	Colon & Rectum	39	Lung	55
	Prostate	79	Bladder	21	Ovary / Non-Hodgkin's Lymphoma	16*
	Bladder	29	Oral Cavity & Pharynx	15	Corpus Uteri	12
Winn	All Cancers	436	All Cancers	236	All Cancers	200
	Lung	84	Prostate	69	Breast	39
	Prostate	69	Lung	55	Lung	29
	Colon & Rectum	45	Colon & Rectum	20	Colon & Rectum	25
	Breast	40	Bladder	14	Non-Hodgkin's Lymphoma	12
	Bladder / Non-Hodgkin's Lymphoma	18*	Leukemias	8	Skin Melanomas	11

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Region 7	All Cancers	12,254	All Cancers	6,614	All Cancers	5,640
	Prostate	2,165	Prostate	2,165	Breast	1,601
	Lung	2,032	Lung	1,294	Colon & Rectum	753
	Breast	1,612	Colon & Rectum	741	Lung	738
	Colon & Rectum	1,494	Bladder	296	Corpus Uteri	274
	Bladder	412	Oral Cavity & Pharynx	204	Ovary	221
Bienville	All Cancers	490	All Cancers	272	All Cancers	218
	Prostate	106	Prostate	106	Breast	60
	Lung	70	Lung	49	Colon & Rectum	29
	Breast	61	Colon & Rectum	29	Lung	21
	Colon & Rectum	58	Bladder	10	Corpus Uteri	13
	Bladder	17	Non-Hodgkin's Lymphoma	9	Cervix Uteri	11
Bossier	All Cancers	1,853	All Cancers	1,005	All Cancers	848
	Lung	340	Prostate	316	Breast	241
	Prostate	316	Lung	221	Lung	119
	Breast	242	Colon & Rectum	102	Colon & Rectum	111
	Colon & Rectum	213	Bladder	50	Ovary	43
	Bladder	72	Kidney & Renal Pelvis / Non-Hodgkin's Lymphoma	34*	Non-Hodgkin's Lymphoma	34
Caddo	All Cancers	5,843	All Cancers	3,060	All Cancers	2,783
	Prostate	1,036	Prostate	1,036	Breast	822
	Lung	918	Lung	551	Colon & Rectum	375
	Breast	828	Colon & Rectum	346	Lung	367
	Colon & Rectum	721	Bladder	142	Corpus Uteri	139
	Bladder Lymphoma	195	Oral Cavity & Pharynx	116	Ovary	109
Claiborne	All Cancers	431	All Cancers	243	All Cancers	188
	Prostate	82	Prostate	82	Breast	60
	Lung	65	Lung	40	Lung	25
	Breast	60	Colon & Rectum	33	Colon & Rectum	24
	Colon & Rectum	57	Bladder	9	Corpus Uteri	11
	Non-Hodgkin's Lymphoma	14	Pancreas / Kidney & Renal Pelvis / Non-Hodgkin's Lymphoma/ Leukemias	7*	Non-Hodgkin's Lymphoma	7

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
DeSoto	All Cancers	685	All Cancers	372	All Cancers	313
	Prostate	122	Prostate	122	Breast	87
	Lung	112	Lung	72	Colon & Rectum	43
	Breast	88	Colon & Rectum	36	Lung	40
	Colon & Rectum	79	Bladder	23	Pancreas	15
	Bladder	30	Larynx / Skin Melanomas / Leukemias	11*	Non-Hodgkin's Lymphoma	12
Natchitoches	All Cancers	784	All Cancers	390	All Cancers	394
	Lung	129	Prostate	109	Breast	104
	Colon & Rectum	110	Lung	79	Colon & Rectum	60
	Prostate	109	Colon & Rectum	50	Lung	50
	Breast	104	Bladder	17	Corpus Uteri	24
	Bladder	26	Kidney & Renal Pelvis	13	Ovary	19
Red River	All Cancers	234	All Cancers	126	All Cancers	108
	Lung	38	Prostate	36	Breast	25
	Prostate	36	Lung	27	Colon & Rectum	14
	Colon & Rectum	34	Colon & Rectum	20	Lung	11
	Breast	25	Leukemias	5	Cervix Uteri	7
	Skin Melanomas	9	**	**	Skin Melanomas / Non-Hodgkin's Lymphoma	5*
Sabine	All Cancers	670	All Cancers	402	All Cancers	268
	Lung	140	Prostate	113	Breast	64
	Prostate	113	Lung	106	Colon & Rectum	40
	Colon & Rectum	74	Colon & Rectum	34	Lung	34
	Breast	64	Bladder	15	Corpus Uteri	15
	Kidney & Renal Pelvis	23	Oral Cavity & Pharynx / Skin Melanomas	13*	Non-Hodgkin's Lymphoma	14
Webster	All Cancers	1,264	All Cancers	744	All Cancers	520
	Prostate	245	Prostate	245	Breast	138
	Lung	220	Lung	149	Lung	71
	Colon & Rectum	148	Colon & Rectum	91	Colon & Rectum	57
	Breast	140	Bladder	28	Non-Hodgkin's Lymphoma	26
	Non-Hodgkin's Lymphoma	44	Skin Melanomas	25	Corpus Uteri	25

* Number of cases is the same at all sites.

** Contents of cells with fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Region 8	All Cancers	8,260	All Cancers	4,478	All Cancers	3,782
	Lung	1,499	Prostate	1,331	Breast	1,066
	Prostate	1,331	Lung	992	Lung	507
	Breast	1,082	Colon & Rectum	414	Colon & Rectum	488
	Colon & Rectum	902	Bladder	177	Corpus Uteri	180
	Skin Melanomas	289	Skin Melanomas	167	Non-Hodgkin's Lymphoma	129
Caldwell	All Cancers	274	All Cancers	160	All Cancers	114
	Lung	60	Lung	42	Breast	32
	Colon & Rectum	38	Prostate	26	Colon & Rectum	20
	Breast	33	Colon & Rectum	18	Lung	18
	Prostate	26	Oral Cavity & Pharynx	9	Cervix Uteri / Non-Hodgkin's Lymphoma	6*
	Non-Hodgkin's Lymphoma	12	Bladder	7	Corpus Uteri	5
East Carroll	All Cancers	243	All Cancers	135	All Cancers	108
	Prostate	48	Prostate	48	Breast	33
	Lung	45	Lung	28	Lung	17
	Breast	33	Colon & Rectum	15	Colon & Rectum	12
	Colon & Rectum	27	Skin Melanomas	7	Cervix Uteri	7
	Skin Melanomas	9	Oral Cavity & Pharynx / Bladder	5*	Kidney & Renal Pelvis	6
Franklin	All Cancers	553	All Cancers	290	All Cancers	263
	Lung	100	Prostate	80	Breast	66
	Prostate	80	Lung	67	Lung	33
	Breast	66	Colon & Rectum	28	Colon & Rectum	27
	Colon & Rectum	55	Pancreas	12	Pancreas	19
	Pancreas	31	Bladder	11	Corpus Uteri	13
Jackson	All Cancers	482	All Cancers	275	All Cancers	207
	Prostate	103	Prostate	103	Breast	55
	Lung	75	Lung	54	Colon & Rectum	26
	Breast	56	Colon & Rectum	17	Lung	21
	Colon & Rectum	43	Bladder	14	Cervix Uteri	14
	Bladder	18	Skin Melanomas	12	Corpus Uteri	13

* Number of cases is the same at each site.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Lincoln	All Cancers	858	All Cancers	465	All Cancers	393
	Prostate	147	Prostate	147	Breast	124
	Lung	145	Lung	100	Lung	45
	Breast	125	Colon & Rectum	37	Colon & Rectum	41
	Colon & Rectum	78	Skin Melanomas	28	Skin Melanomas	26
	Skin Melanomas	54	Bladder	21	Corpus Uteri	24
Madison	All Cancers	240	All Cancers	124	All Cancers	116
	Lung	44	Prostate	34	Breast	28
	Prostate	34	Lung	25	Colon & Rectum	20
	Colon & Rectum	33	Colon & Rectum	13	Lung	19
	Breast	28	Esophagus	9	Ovary / Pancreas / Kidney & Renal Pelvis / Cervix Uteri	5*
	Esophagus	13	Stomach	8	**	**
Morehouse	All Cancers	771	All Cancers	436	All Cancers	335
	Prostate	139	Prostate	139	Breast	103
	Lung	133	Lung	93	Colon & Rectum	47
	Breast	106	Colon & Rectum	40	Lung	40
	Colon & Rectum	87	Bladder	20	Corpus Uteri	14
	Bladder	27	Skin Melanomas	16	Pancreas	13
Ouachita	All Cancers	3,135	All Cancers	1,628	All Cancers	1,507
	Lung	557	Prostate	469	Breast	452
	Prostate	469	Lung	348	Lung	209
	Breast	458	Colon & Rectum	153	Colon & Rectum	189
	Colon & Rectum	342	Bladder	68	Corpus Uteri	68
	Non-Hodgkin's Lymphoma	112	Skin Melanomas	65	Non-Hodgkin's Lymphoma	54
Richland	All Cancers	599	All Cancers	341	All Cancers	258
	Lung	125	Prostate	90	Breast	62
	Prostate	90	Lung	81	Lung	44
	Colon & Rectum/ Breast	64*	Colon & Rectum	29	Colon & Rectum	35
	Non-Hodgkin's Lymphoma	22	Oral Cavity & Pharynx	16	Corpus Uteri	16
	Skin Melanomas / Leukemias	21*	Leukemias	14	Cervix Uteri / Ovary	12*

* Number of cases is the same at each site.

** Contents of cells with fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
Tensas	All Cancers	152	All Cancers	84	All Cancers	68
	Lung	36	Prostate	31	Breast	15
	Prostate	31	Lung	25	Colon & Rectum	13
	Colon & Rectum	23	Colon & Rectum	10	Lung	11
	Breast	15	**	**	Corpus Uteri	5
	Corpus Uteri	5	**	**	**	**
Union	All Cancers	594	All Cancers	324	All Cancers	270
	Lung	116	Prostate	94	Breast	66
	Prostate	94	Lung	83	Colon & Rectum	44
	Colon & Rectum	73	Colon & Rectum	29	Lung	33
	Breast	68	Oral Cavity & Pharynx	21	Skin Melanomas	14
	Oral Cavity & Pharynx	23	Stomach / Larynx	9*	Ovary	13
West Carroll	All Cancers	359	All Cancers	216	All Cancers	143
	Prostate	70	Prostate	70	Breast	30
	Lung	63	Lung	46	Lung	17
	Colon & Rectum	39	Colon & Rectum	25	Colon & Rectum	14
	Breast	30	Oral Cavity & Pharynx	9	Non-Hodgkin's Lymphoma	11
	Non-Hodgkin's Lymphoma	17	Bladder	7	Corpus Uteri	10
Region 9	All Cancers	7,731	All Cancers	4,230	All Cancers	3,501
	Lung	1,444	Prostate	1,229	Breast	1,064
	Prostate	1,229	Lung	937	Lung	507
	Breast	1,080	Colon & Rectum	441	Colon & Rectum	416
	Colon & Rectum	857	Bladder	222	Non-Hodgkin's Lymphoma	159
	Non-Hodgkin's Lymphoma	317	Non-Hodgkin's Lymphoma	158	Corpus Uteri	133
Livingston	All Cancers	1,442	All Cancers	794	All Cancers	648
	Lung	302	Prostate	241	Breast	188
	Prostate	241	Lung	191	Lung	111
	Breast	191	Colon & Rectum	68	Colon & Rectum	79
	Colon & Rectum	147	Bladder	51	Non-Hodgkin's Lymphoma	27
	Bladder	64	Oral Cavity & Pharynx	25	Corpus Uteri	20

*Number of cases is the same at each site.

** Contents of cells with fewer than five cases are suppressed for reasons of confidentiality.

Top Five Cancers and Number of Cases Diagnosed in Louisiana By Region and Parish, 1993-1997						
Region/Parish	**Total**		**Males**		**Females**	
St. Helena	All Cancers	122	All Cancers	79	All Cancers	43
	Prostate	30	Prostate	30	Breast	13
	Lung	27	Lung	20	Lung	7
	Colon & Rectum / Breast	13*	Colon & Rectum	8	Colon & Rectum	5
	**	**	**	**	**	**
	**	**	**	**	**	**
St. Tammany	All Cancers	3,200	All Cancers	1,734	All Cancers	1,466
	Lung	554	Prostate	496	Breast	481
	Prostate	496	Lung	344	Lung	210
	Breast	490	Colon & Rectum	178	Colon & Rectum	160
	Colon & Rectum	338	Bladder	96	Non-Hodgkin's Lymphoma	74
	Non-Hodgkin's Lymphoma	162	Non-Hodgkin's Lymphoma	88	Ovary	62
Tangipahoa	All Cancers	1,873	All Cancers	1,021	All Cancers	852
	Lung	356	Prostate	291	Breast	242
	Prostate	291	Lung	236	Lung	120
	Colon & Rectum	244	Colon & Rectum	133	Colon & Rectum	111
	Breast	243	Bladder	43	Non-Hodgkin's Lymphoma	35
	Non-Hodgkin's Lymphoma	63	Kidney & Renal Pelvis	34	Pancreas / Ovary	32*
Washington	All Cancers	1,094	All Cancers	602	All Cancers	492
	Lung	205	Prostate	171	Breast	140
	Prostate	171	Lung	146	Colon & Rectum	61
	Breast	143	Colon & Rectum	54	Lung	59
	Colon & Rectum	115	Bladder	31	Non-Hodgkin's Lymphoma	23
	Kidney & Renal Pelvis / Non-Hodgkin's Lymphoma	42*	Kidney & Renal Pelvis	24	Pancreas	21

* Number of cases is the same at each site.

** Contents of cells with fewer than five cases are suppressed for reasons of confidentiality.

Source: Louisiana Tumor Registry

F. CHRONIC DISEASE—BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

Behavior-related illness and injury, such as heart disease, cancer, cerebrovascular disease, and motor vehicle-related injuries result in the premature death or compromised lifestyle of thousands of Louisiana residents each year. Most of the adults in the state report that they engage in at least one health behavior that place them at an increased, but avoidable, risk for these outcomes.

Prevention of illness before it occurs is a central aspect of the public health system. Achievement of this goal requires an understanding of the risk factors that lead to illness and of the behaviors that put an individual at risk of illness. The goal of primary prevention programs is to reduce or prevent initiation of behaviors, such as smoking, alcohol use, sedentary lifestyles, and poor eating habits, known to be associated with chronic disease. The goal of secondary prevention is to reduce or delay chronic illnesses and deaths through the early identification and treatment of persons with early signs/symptoms of diseases, by promoting the use of scientifically validated screening exams for early detection of certain cancers, hypertension, breast cancer, and diabetes.

To collect information needed by its primary and secondary prevention programs, the Louisiana DEPARTMENT OF HEALTH AND HOSPITALS (DHH), OFFICE OF PUBLIC HEALTH, in cooperation with the CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC), began in 1991 to participate in the Behavioral Risk Factor Surveillance System (BRFSS). The purpose of the BRFSS is to provide state-level prevalence data on health-related behaviors and attitudes. Information collected in the survey is being used in the state's ongoing effort to plan, develop, and evaluate health promotion and disease prevention programs. Data from the BRFSS are also used to monitor progress toward achieving the national objectives of the Healthy People 2000 program of the United States Department of Health and Hospitals (USDHHS, 1990).

Adults ages 18 years and older who do not live in institutions such as geriatric centers, hospitals, jail, or prison may be included in the BRFSS. Some survey questions are asked each year and some are asked on alternating years. The following information, representing non-institutionalized Louisiana adult residents ages 18 and older, are from the most recent BRFSS that collected the specified data.

BRFSS: Tobacco Use

Cigarette Smoking

Each year smoking kills more people than alcohol, motor vehicle injuries, suicide, AIDS, homicide, illegal drugs, and fires combined. Cigarette smoking is the leading cause of preventable death and disease in the United States, accounting for more than 400,000 deaths nationally each year.

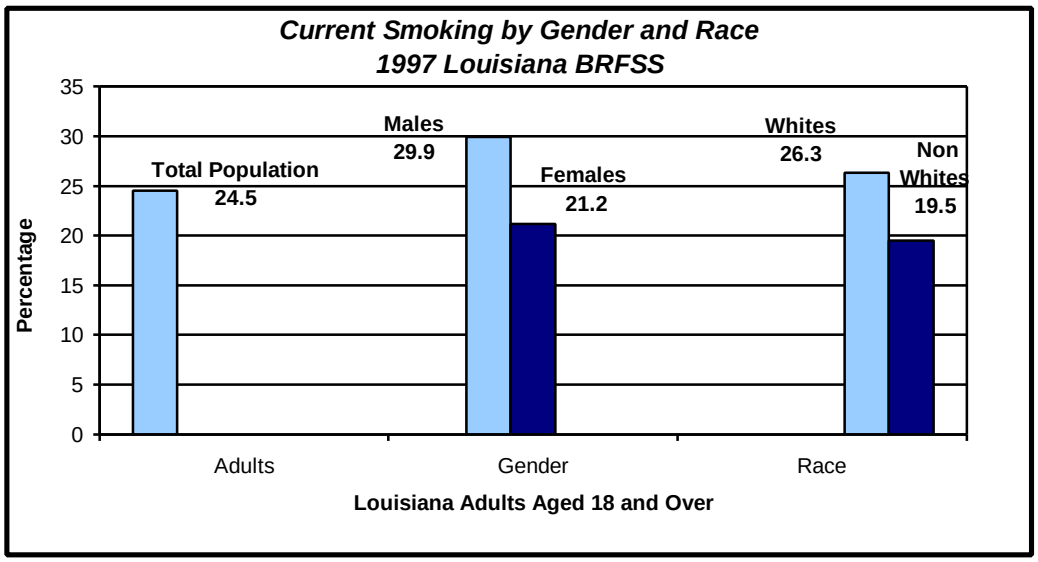
In 1994, 20% (7,951) of all deaths in Louisiana were attributable to cigarette smoking. Almost all (99%) of these deaths occurred as a result of cancer, heart disease, stroke, and vascular and respiratory diseases.

Current Smoking Rates

In 1997, according to BRFSS results, approximately one out of four adult Louisianians was a current smoker. Among current smokers, 47.6% attempted to quit smoking for one or more days during the twelve months preceding the survey.

The prevalence of current smokers was higher in males (29.9%) than females (21.2%). The white population had a higher prevalence of current smoking (26.3%) than the non-white

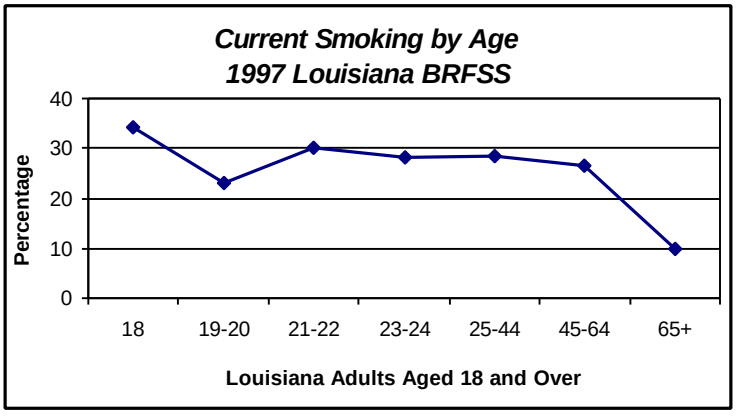
population (19.5%). Prevalence of current smoking remained steady (approximately 28%) during the ages of 21-64 years and dramatically declined after age 65. This decline could be due to tobacco-related deaths and complications from tobacco use.



Source: Louisiana Office of Public Health, Chronic Disease Control Program

Cigarette Smoking and Youth

State and national data show that most current tobacco users actually begin using tobacco during their youth. The 1997 BRFSS data indicated that the highest proportion of current smokers was among the 18-year-old age group (34.3%). This finding clearly justifies continued efforts to prevent tobacco use among youths. Based on research to date, the only proven method for reducing youth addiction is increased taxation. Studies have shown that about 10% fewer kids become addicted with each $0.25 raise in tobacco taxation. The amount of taxation on cigarettes in Louisiana is low compared with other states.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Smokeless Tobacco

The link between occurrence of oral cancer and the use of smokeless tobacco, snuff, and chewing tobacco has been clearly documented. The available research shows that snuff use increases the risk of oral cancer among nonsmokers four-fold. Among chronic snuff users the

excess risk of cancer of the gum and buccal mucosa reaches nearly fifty-fold. In the United States, more than 30,000 cases a year of oral cancer are attributed to the use of smokeless tobacco.

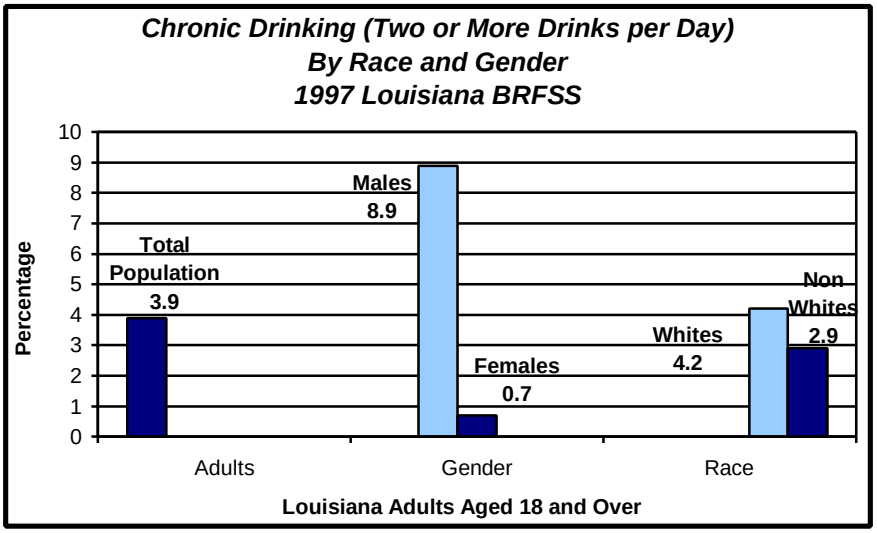
In the 1997 BRFSS, 3% of the adult population reported that they were current users of smokeless tobacco. However, 12.1% of the respondents indicated that they had used or tried smokeless tobacco products at some time. The overwhelming majority of current smokeless tobacco users were young, white, and male.

BRFSS: Alcohol Use

Health and social problems associated with heavy, chronic, and binge drinking are well recognized. Liver diseases are associated with chronic alcohol abuse, and fatal motor vehicle accidents are associated with heavy chronic and binge drinking. Chronic drinking is defined as two or more drinks daily for thirty days or at least sixty drinks per month. Binge drinking is defined as five or more drinks on one or more occasions within thirty days.

Based on the 1997 BRFSS, approximately 15.2% of the Louisiana adult population reported at least one episode of binge drinking in the thirty days prior to the survey. Men (24.2%) were four times more likely to engage in binge drinking than women (7.4%) were. Whites (15.9%) were more likely to report binge drinking than Non-Whites (9.7%). The prevalence of binge drinking decreased with increasing age.

Approximately 3.9% of adult Louisianians reported that they consumed at least two alcoholic drinks each day of the month prior to the survey. Males (8.9%) were more likely than females (0.7%) to report chronic alcohol use. Whites (4.2%) were more likely than Non-Whites (2.9%) to report chronic alcohol use.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Drinking and Driving

Many studies suggest that automobile crashes in which alcohol plays a role tend to be much more severe than other crashes. Nationally, alcohol plays a role in about 20% of crashes involving serious injury to driver or passenger, about 50% of all fatal crashes, and about 60% of single-vehicle fatal crashes. Estimates place the number of deaths in the United States attributed to alcohol-related motor vehicle crashes at over 22,000.

Of those who indicated they had consumed alcohol in the month prior to the survey, 6.0% indicated that on at least one occasion they had driven when they had had too much to drink.

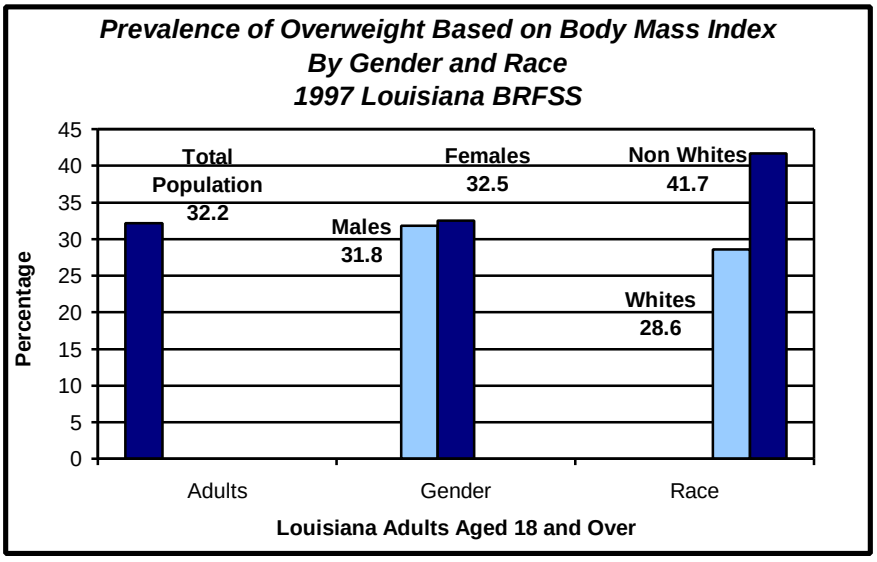
BRFSS: Nutrition and Exercise

Nutrition and exercise are important to good health overall and are related to weight or body fatness. Increases in body fatness are associated with high blood pressure, diabetes, coronary heart disease, and atherosclerosis. Additionally, high fat, low fiber diets are associated with various types of cancer.

Overweight

The Body Mass Index (BMI) is a measure of body fatness derived from height and weight. For males a BMI of 27.8 or greater is considered overweight. For females a BMI of 27.3 or higher is considered overweight.[4]

Nearly one-third (32.2%) of Louisiana adults are overweight. With increasing age, there is a general trend toward increasing prevalence of overweight. There were no significant differences in overweight prevalence between females (32.5%) and males (31.8%). However, Non-Whites (41.7%) were more likely than Whites (28.6%) to be overweight. With age, prevalence increases up to age 65 years. Interestingly, Americans overall are not eating many more calories. The weight increases are tied more directly to a marked decline in physical activity.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

Fruit and Vegetable Consumption

The National Academy of Sciences, the U.S. Department of Agriculture, the U.S. Department of Health and Human Services, the American Cancer Society and the National Cancer Institute specify in their dietary guidelines for fiber intake that at least five servings of fruit and vegetables per day are consistent with the maintenance of good health and cancer prevention.

The BRFSS-1998 is collecting new data on this topic. According to the 1996 BRFSS data, less than 20% of Louisiana's adults reported consumption of five fruits and vegetables per day. Males (14.4%) were less likely than females (21.2%) to report meeting the dietary fiber guideline.

[4] National Center for Health Statistics. *Healthy People 2000 Review, 1997*. Hyattsville, Maryland: Public Health Service. 1997.

Physical Activity

The Surgeon General's report *Physical Activity and Health*[5] concluded that individuals of all ages who engage in regular physical activity have a lower mortality rate than individuals with sedentary lifestyles. While higher levels of fitness have greater health benefits, studies suggest that even moderate amounts of activity are beneficial. New research indicates that thirty minutes of moderate physical activity, even if broken into three ten-minute episodes, convey significant health benefits. Increases in physical activity are associated with decreases in body fatness, lowering of blood pressure, and increased glucose tolerance.

Persons who report no physical activity outside of work are classified as sedentary. The BRFSS-1998 is collecting new data on this topic. According to the 1996 BRFSS data, one in three Louisiana adults is physically inactive; that is, they had not been involved in leisure time physical activities in the month preceding the survey. Another 27.5% engage in irregular physical activity; that is, less than three times a week or less than twenty minutes per session. Overall, 62.3% were sedentary. The prevalence of sedentary lifestyles was similar for males (60.7%) and females (63.7%). However, a larger proportion of Non-Whites (70.2%) than Whites (59.1%) reported sedentary lifestyles.

BRFSS: Health Status

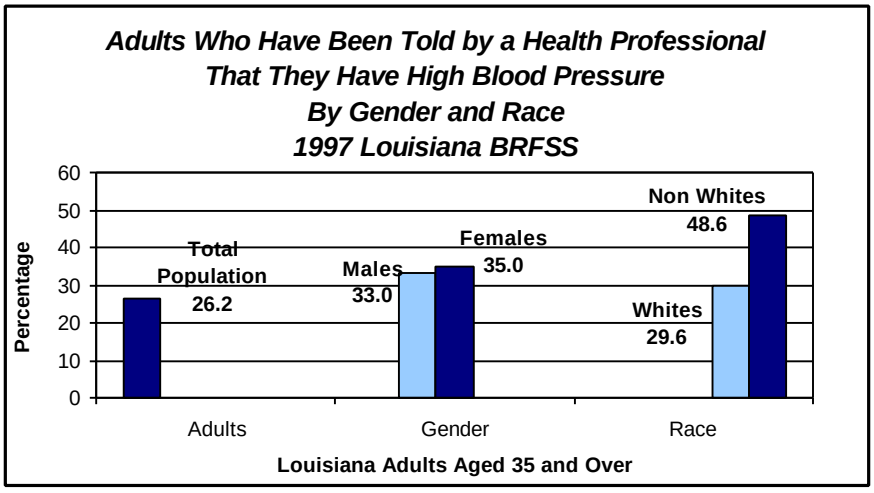
Overall, the health status of the adult population may be reflected in the chronic disease burden. Chronic diseases of public health importance (i.e. diseases that are among the leading causes of death, that have high economic and disability impact, etc.) include hypertension, high cholesterol, and diabetes. The goal of public health with regard to these diseases is early detection through periodic screening and treatment.

High Blood Pressure (Hypertension)

High blood pressure is associated with increased risk for stroke, kidney failure, and coronary heart disease. Blood pressure tends to increase with age and can be affected by weight gain, physical inactivity, and, to a lesser extent, diet. Blood pressure should be checked periodically; individuals with high levels (greater than 140/90 mm Hg) recorded more than once should be referred for treatment.

Approximately one out of every four Louisianians, 35 years of age and older, has been told by a health professional that he has high blood pressure. While there were no significant differences regarding gender, a large differential exists between races; 29.6% of Whites and 48.6% of Non-Whites indicated they were ever told that they had high blood pressure.

[5] U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General.* Atlanta, GA. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.

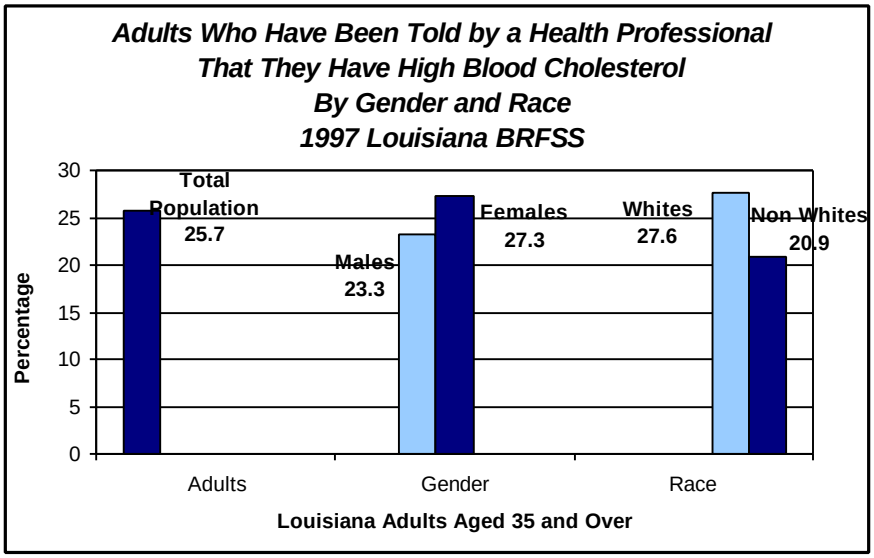


Source: Louisiana Office of Public Health, Chronic Disease Control Program

High Cholesterol

High blood cholesterol is one of the major modifiable risk factors for coronary heart disease. It has been estimated that each 1% reduction in blood cholesterol levels results in a 2% reduction in the risk for heart disease.

One in four (25.7%) Louisiana adults age 35 and above indicated that a physician or nurse had told him that he had high blood cholesterol. Approximately 23.3% of males and 27.3% of females, aged 35 and older, indicated they had been told by a health professional that they had high cholesterol.



Source: Louisiana Office of Public Health, Chronic Disease Control Program

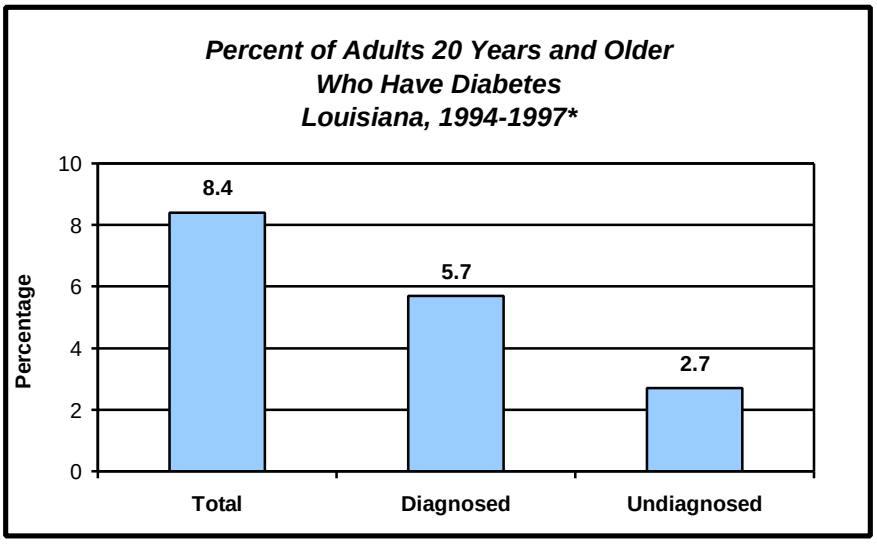
Diabetes

Diabetes is a complex, serious, and increasingly common disease. It is characterized by inappropriate high glucose level in the blood, resulting from inadequate insulin production, inability of the body to use insulin, or both. Insulin is a hormone secreted by the pancreas that allows glucose to enter body cells and to be converted to energy, protein, and fat. Persons who are obese, physically inactive, or members of ethnic minorities (African-Americans, Hispanic/Latino Americans, and American Indians) and those with family history of diabetes or prior gestational diabetes are at a higher risk of acquiring diabetes.

Diabetes is the most common cause of non-traumatic amputations and end-stage renal disease and the leading cause of blindness in adults aged 20 to 74. In 1993, in Louisiana, diabetes caused an estimated 276 new cases of blindness, 1,162 lower extremity amputations, 417 new cases of end-stage kidney disease and 66,965 diabetes-related hospitalizations. The annual direct and indirect costs from diabetes in Louisiana exceed $2 billion dollars.

Diabetes affects about 16 million Americans or 6% of the population of the United States. In 1994, Louisiana ranked second in the United States in self-reported prevalence of diagnosed diabetes.

An estimated 365,000 or 8.4% (5.7% diagnosed and 2.7% undiagnosed diabetes) of Louisiana residents 20 years and older have diabetes. Of the persons with diabetes, 32% or 115,000 are undiagnosed or unaware that they have diabetes and are therefore not receiving recommended treatment to prevent or delay the onset of complications. Over a million additional persons may be at increased risk for diabetes because of the risk factors of age, obesity, and sedentary lifestyle.



*Louisiana BRFSS aggregated for 1994-1997 for diagnosed and NHANES III for undiagnosed diabetes

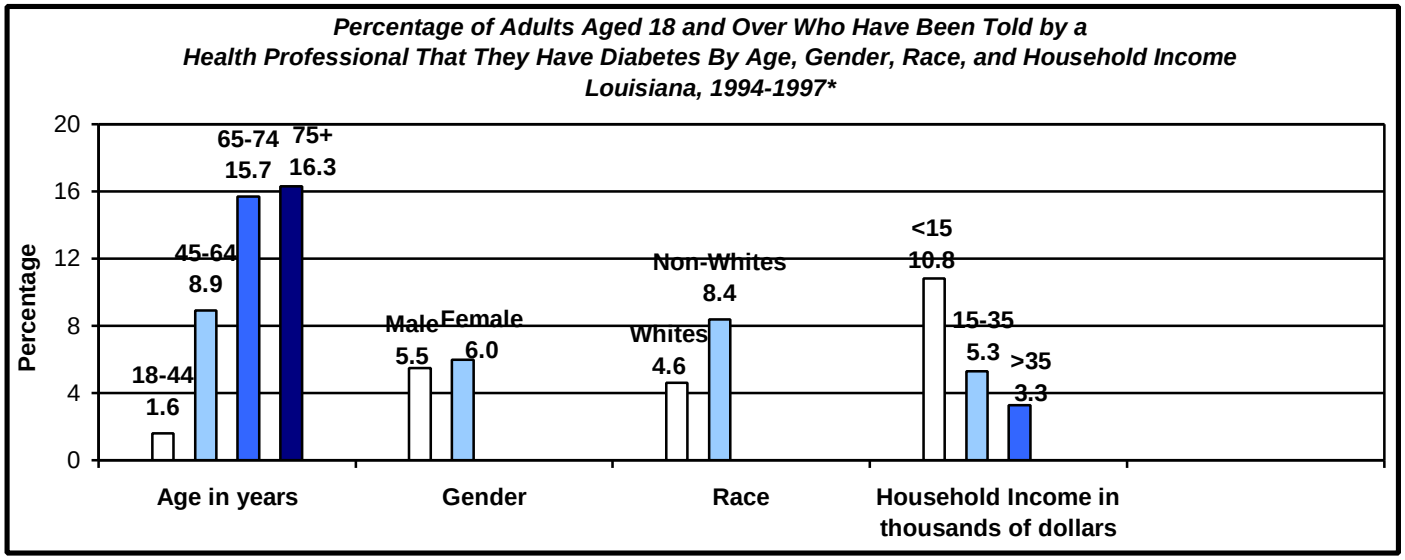
Source: Louisiana Office of Public Health, Chronic Disease Control Program

In 1998, in-depth analysis of diabetes in Louisiana was performed using the most current available information. Data were compiled from the Louisiana BRFSS 1994-1997 interviews and the National Health and Nutrition Survey (NHANES III) conducted by the U.S. Centers for Disease Control. Analysis showed no statistically significant difference between females and males or among regions in Louisiana in self-reported risk of being diagnosed with diabetes. The prevalence of diabetes, however, increased as age increased, with the lowest rate of 1.6% in the 18 to 44 age group and the highest rate of 16.3% in 75+ age group. Persons older than 44

years were 7.4 times more likely to be diagnosed with diabetes as compared with persons less than 44 years of age.

Four point six percent of Whites and 8.4% of African-Americans reported having been diagnosed with diabetes. That is, the risk of being diagnosed with diabetes among African-Americans was 1.8 times higher than the risk among Whites. The prevalence of diabetes decreased with increasing household income. Individuals living in households with income less than $15,000 a year had the highest prevalence --10.8% -- while those living in households with annual incomes ranging from $15,000 to $35,000 and those above $35,000 had rates of 5.3% and 3.3% respectively. In other words, the risk of being diagnosed with diabetes among persons with household income of less than or equal to $15,000 was 2.3 times higher compared with the risk among households with an annual income of over $15,000. Of the persons with diabetes, 55% were females, 84% were over 44 years of age (mean age of 61 years), 56% were white, 33% had a household income of less than $15,000, 33% were employed, and 41% were retired.

Diabetes is a risk factor for coronary heart disease and stroke. In fact, of the persons with diabetes in 1997, 13% were told they had coronary artery disease and 10% that they had had a stroke. Persons with diabetes are at even higher risk for cardiovascular disease morbidity and mortality because of the co-existence of other independent risk factors for cardiovascular disease. Fifty-one percent of persons with diabetes were found to be overweight based on body mass index, 29% were self-reported current smokers, 50% were told they have high blood pressure, and 38% were told they have high cholesterol. In addition, 68% reported no leisure time physical activity and 76% reported consuming less than the recommended five servings of fruit and vegetables a day.



*Louisiana BRFSS aggregated for 1994-1997

Source: Louisiana Office of Public Health, Chronic Disease Control Program

Diabetes is a common and serious disease in Louisiana. It is a costly disease not only in terms of the economic burden it imposes on the state but also in terms of the human suffering inflicted by the disease and its complications. At least 365,000 or 8.4% of Louisiana residents 20 years and older have diabetes. The prevalence of diabetes will continue to increase if the following trends continue: increase in the prevalence of obesity, aging of the population, growth in minority populations, and persistence of socioeconomic gaps. Persons older than 44 years of

age, African-Americans, and individuals with household incomes of less than $15,000 are at higher risk of having diagnosed diabetes.

Diabetes surveillance should continue in order to identify high-risk groups, to monitor health outcomes and indicators of the quality of health care recommended for people with diabetes, to provide data to formulate health care policy, and to evaluate progress in disease prevention and control.

There is a need to develop effective intervention strategies to reduce the burden of diabetes. Much of the diabetes burden can be prevented with better education for diabetes self-management, early detection and treatment of complications, and improved delivery and quality of care with intensified efforts focused at high risk groups including the elderly, African-Americans, and the poor. Primary prevention through promotion of healthy behaviors that reduce obesity, such as proper nutrition and regular physical activity, and secondary prevention of diabetes complications via better clinical preventive services, including regular foot exams, dilated eye exams, and improved blood glucose control, will go far in reducing the diabetes burden.

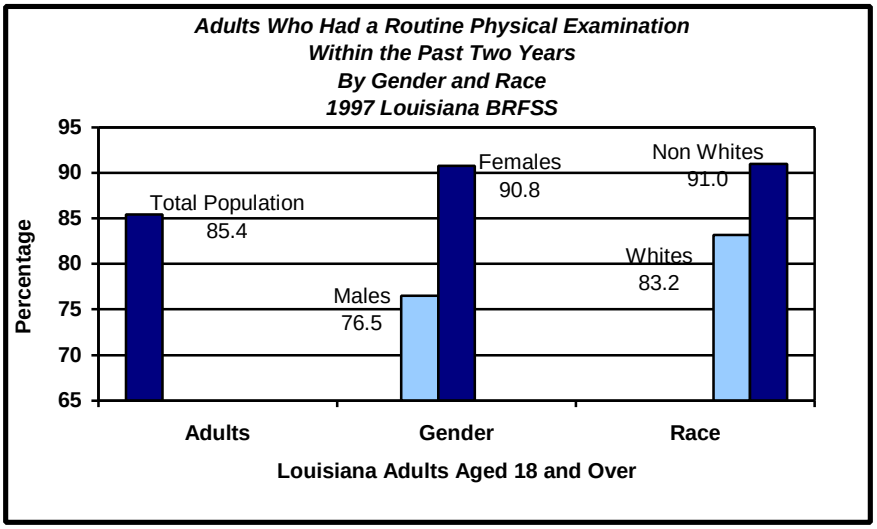
To reduce the burden of diabetes and diabetes complications, there is a need to develop new partnerships and to strengthen existing ones with private health care providers, appropriate governmental, voluntary, professional, and academic institutions and payers including Medicaid, managed care organizations, insurers, and employers. Because of the overlap in risk factors and intervention strategies, and programs for diabetes, cardiovascular and cerebrovascular diseases, and some cancers, prevention and control efforts need to be integrated and coordinated among several of the existing programs in chronic diseases within and outside the OFFICE OF PUBLIC HEALTH.

BRFSS: Preventive Health Care

Routine Medical Examinations

The routine medical examination gives the physician an opportunity to assess the general health status of patients, to assess the need for screening, and to counsel patients regarding perceived issues that affect the patient's health. Thus, it is the prime opportunity to practice preventive care.

In the 1997 BRFSS, 85.4% of the respondents had a routine checkup within the last two years. Women (90.8%) were more likely than men (76.5%) to have had a routine checkup within the past two years. Non-Whites (91.0%) were more likely than Whites (83.2%) to have had a routine checkup within the past two years.

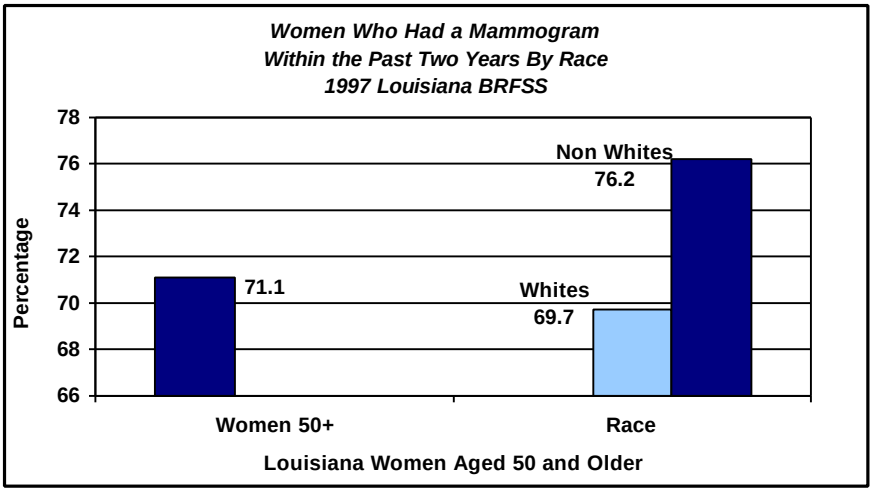


Source: Louisiana Office of Public Health, Chronic Disease Control Program

Mammography

Among women, breast cancer is the most commonly diagnosed cancer. Routine breast examinations by a health professional, or clinical breast examination and mammography are the most effective ways of detecting breast cancer early and improving the chances of survival. The National Cancer Institute, the American Cancer Society, and the United States Department of Health and Human Services recommend that women have a mammogram each year beginning at age 50. There is some controversy about the benefits of screening younger women.

In the 1997 BRFSS, among Louisiana women aged 50 and older, 71.1% reported they had had a mammogram within the two years before the survey. Non-Whites (76.2%) were more likely than Whites (69.7%) to report that they had a mammogram within the last two years.

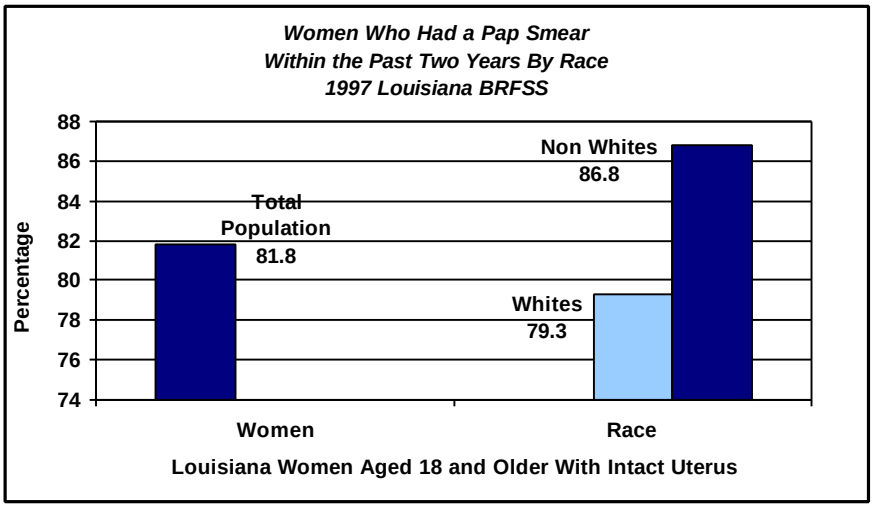


Source: Louisiana Office of Public Health, Chronic Disease Control Program

Pap Smear

A Pap smear is used to obtain a sample of cervical cells to be evaluated for dysplasia or cervical cancer. The American Cancer Society recommends annual Pap tests for all women who are or have been sexually active or who have reached age 18. Once three annual Pap smears have been normal, the test can be done every three years unless a physician recommends more frequent testing.

Among women who had an intact uterus (had not had a hysterectomy), 81.8% had had a Pap smear within the past two years. Non-White women (86.8%) were slightly more likely than White women (79.3%) to have had a Pap smear within the past two years.



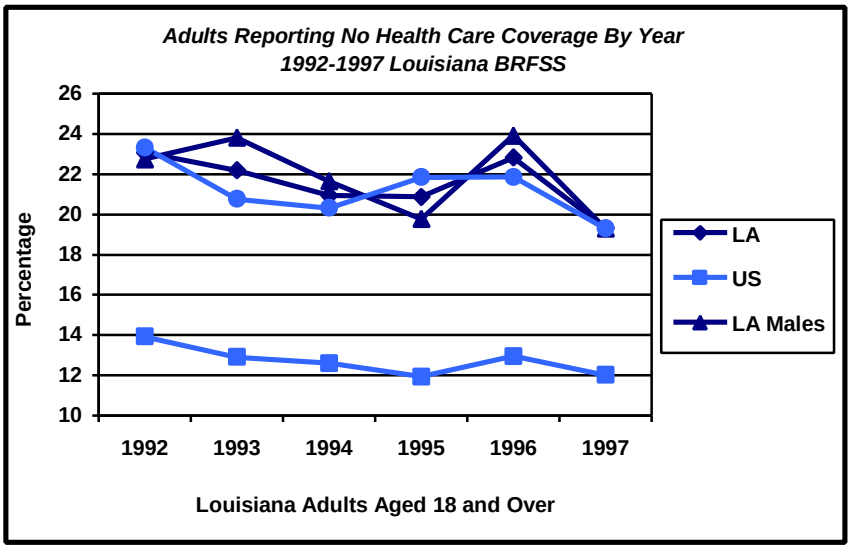
Source: Louisiana Office of Public Health, Chronic Disease Control Program

BRFSS: Medical Care Coverage

Availability of health care coverage is a crucial component in an individual's access to health care. An important Year 2000 Health Objective for the nation is to "improve financing and delivery of clinical preventive services so that virtually no American has a financial barrier to receiving, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force." Individuals without medical coverage, and even some individuals with coverage (underinsured), may not receive health care due to the cost of care. Therefore, measures of utilization of health care, including routine checkups, are dependent on coverage. The BRFSS assesses health care coverage by asking about private insurance, prepaid plans (HMOs), or Medicare.

Louisiana consistently has higher rates of adults with no health care coverage compared with the United States adult population at large.

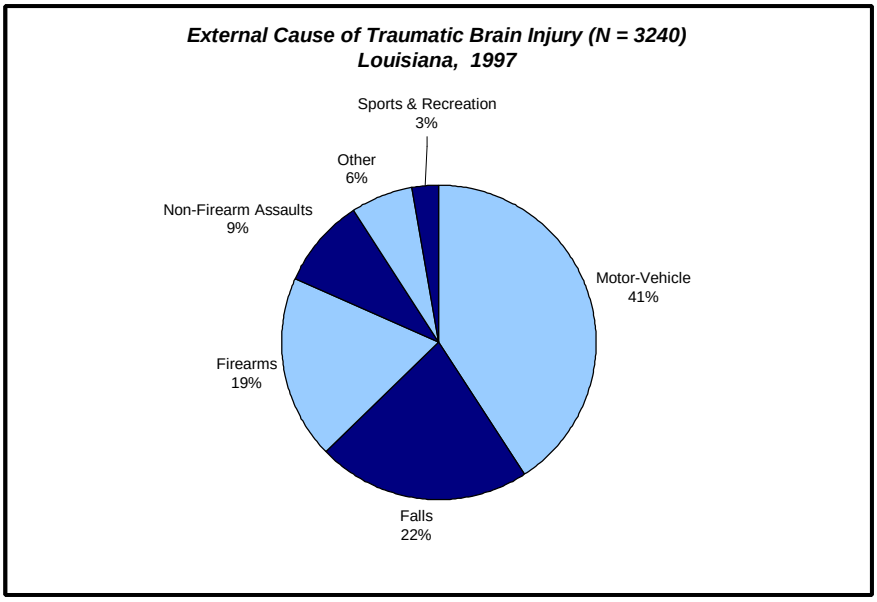
In the 1997 BRFSS, 19.3% of Louisiana adults who were surveyed reported that they had no health care coverage. While there were no disparities between rates of no health care coverage among females (19.3%) and males (19.3%), there was a clear racial difference, with Non-Whites (29.9%) being more likely than Whites (15.4%) to report a lack of health care coverage.



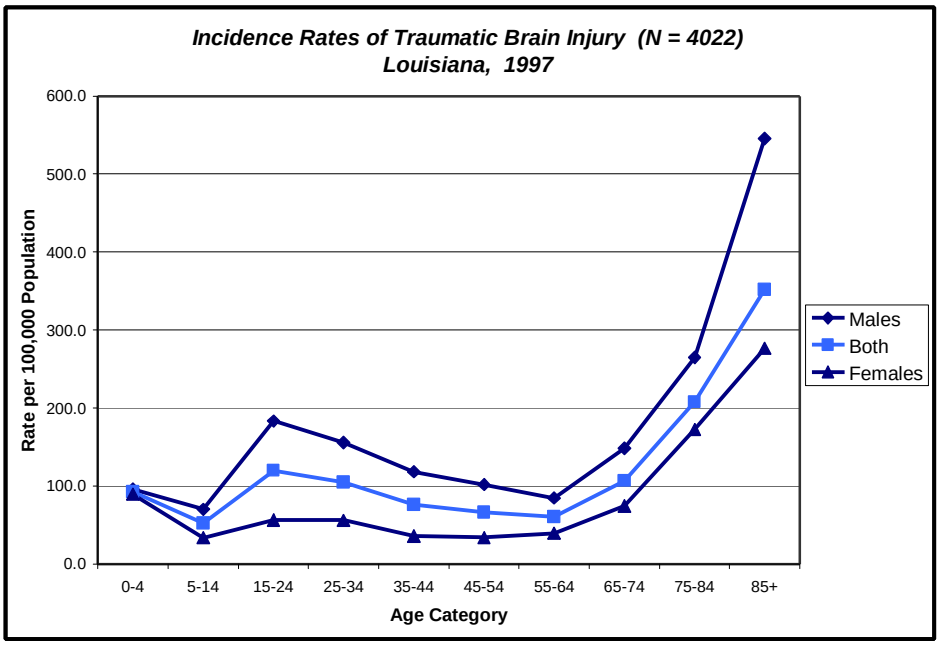
Source: Louisiana Office of Public Health, Chronic Disease Control Program

G. TRAUMATIC BRAIN INJURY

Injuries to the central nervous system are one of the most severe types of injuries in terms of both human suffering and costs to society. They are a major public health problem because of the permanence of the resulting disability, the high costs of acute and long-term treatment, and the fact that they frequently occur to young people. Traumatic brain injury is a reportable condition in Louisiana.



Source: Louisiana Office of Public Health, Injury Research and Prevention Section



Source: Louisiana Office of Public Health, Injury Research and Prevention Section